VOL. 76 NO. 2

textile bulletin

MARCH • 1950

Three practical articles dealing with the various aspects of textile plant safety are "recommended reading" in this issue, see Pages 35 through 40.

U. N. C.
Commerce R. R.
10 1950

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Textile Bulletin is published monthly by Clark Publishing Co., 218 West Morehead St., Charlotte 2, N. C. Subscription $1.50 per year in advance, $3 for three years. Entered as second-class mail matter March 2, 1911, at Postoffice, Charlotte, N. C., under Act of Congress, March 2, 1897.

LOOM NECESSITIES

Made from the Finest Hickory and Dogwood

Box Fronts
Crank or Pitman Arms
Creel Sticks
Harness Roll Bearings
Jack Sticks

Laysword Reed Caps
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Top Clearer Boards
Under Clearer Roll Sticks
Whip Roll Blocks
Whip Roll Shaft Bearings

THE BULLARD CLARK COMPANY

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SOUTHERN DIVISION
Charlotte, N. C.

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Danielson, Conn.

SERVING THE TEXTILE INDUSTRY SINCE 1899

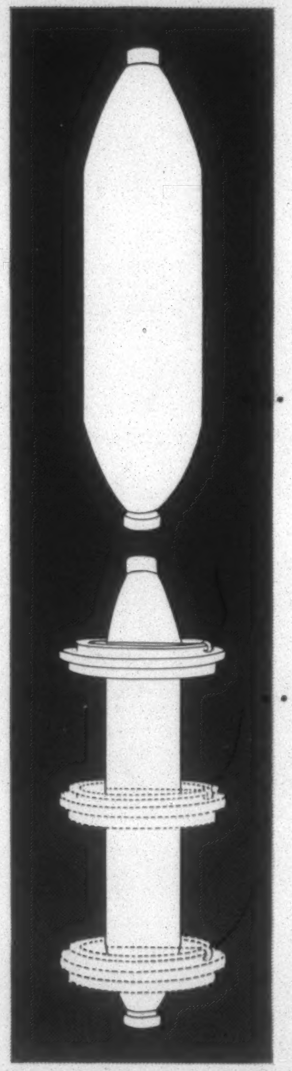
SONOCO

STRAIGHT SIDE WARP SPINNING

BOBBINS

Increase Yarn Production

Improve Yarn Quality



Straight side allows full traverse permitting a larger package. Top suspension cuts doffing time by breaking sharply without drag and pull . . . Two features that mean an important savings in production costs.

Straight side allows a constant angle of yarn pull from top to bottom. This means *uniform tension* and results in the production of more uniform yarn with a constant degree of elasticity throughout.

SONOCO Bobbins are made in five standard sizes. Mill-run tests report definite improvements in yarn quality and production.

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AUSPICES OF NATIONAL ASSOCIATION OF TEXTILE MACHINERY MANUFACTURERS
AMERICAN TEXTILE MACHINERY EXHIBITION
ATLANTIC CITY
MAY 8-12, 1950

Booth No. 71-72

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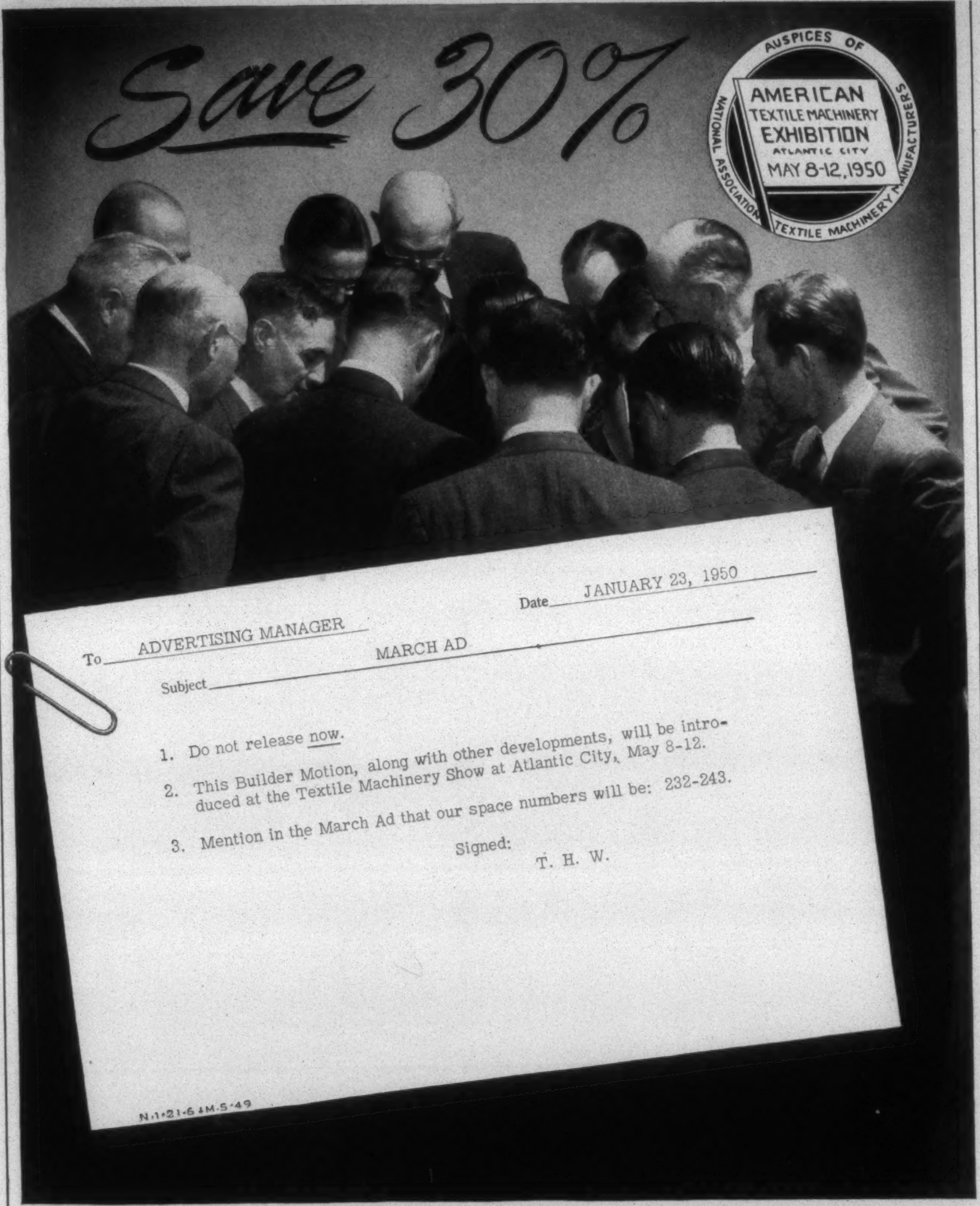

Date JANUARY 23, 1950

To ADVERTISING MANAGER

Subject MARCH AD

1. Do not release now.
2. This Builder Motion, along with other developments, will be introduced at the Textile Machinery Show at Atlantic City, May 8-12.
3. Mention in the March Ad that our space numbers will be: 232-243.

Signed:
T. H. W.

N-1-21-6 M-5-49

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Atlanta, Ga. Hopedale, Massachusetts Spartanburg, S.C.

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ATLANTIC CITY
MAY 8-12, 1950

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*Factory †Repair Shop ‡Distributing Point

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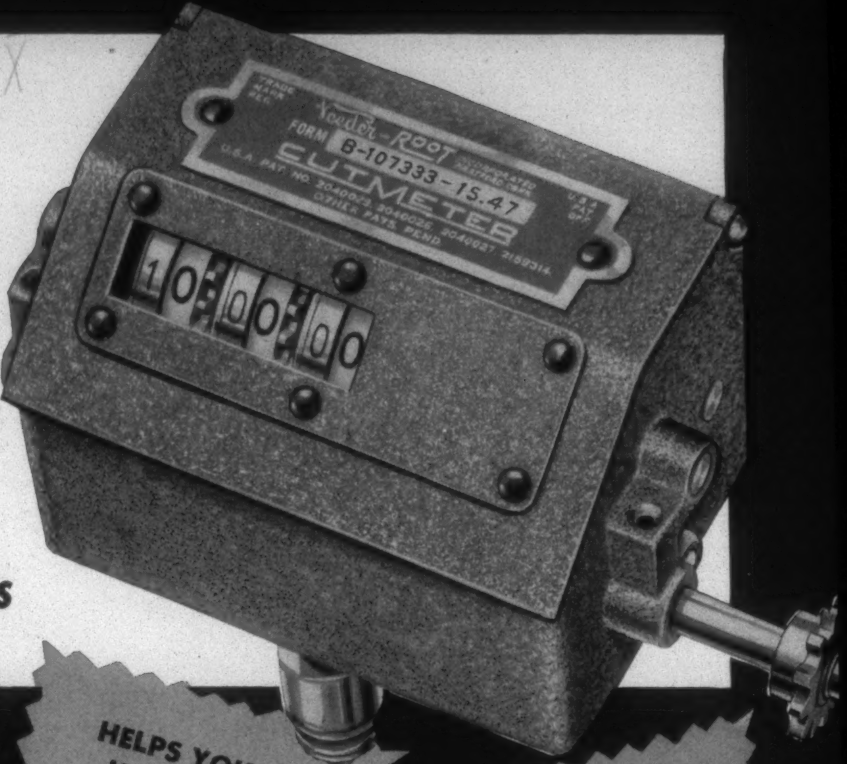

ELIMINATES CUT MARKS

HELPS YOU CUT WORK LOAD

HELPS YOU CUT PRODUCTION LOSS

HELPS YOU ASSURE UNIFORM CUTS

HELPS YOU SIMPLIFY INVENTORY CONTROL

HELPS CUT WORKING COSTS

HELPS YOU AVOID STREAKS AND CREASES

HELPS CUT WASTE ENDS

HELPS YOU CUT DOWN SECONDS

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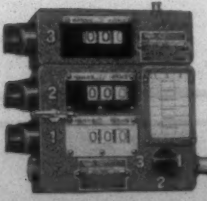
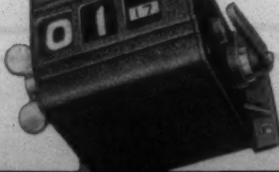
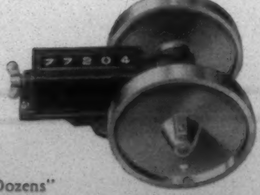
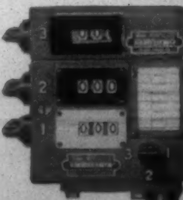
Booths 264-265

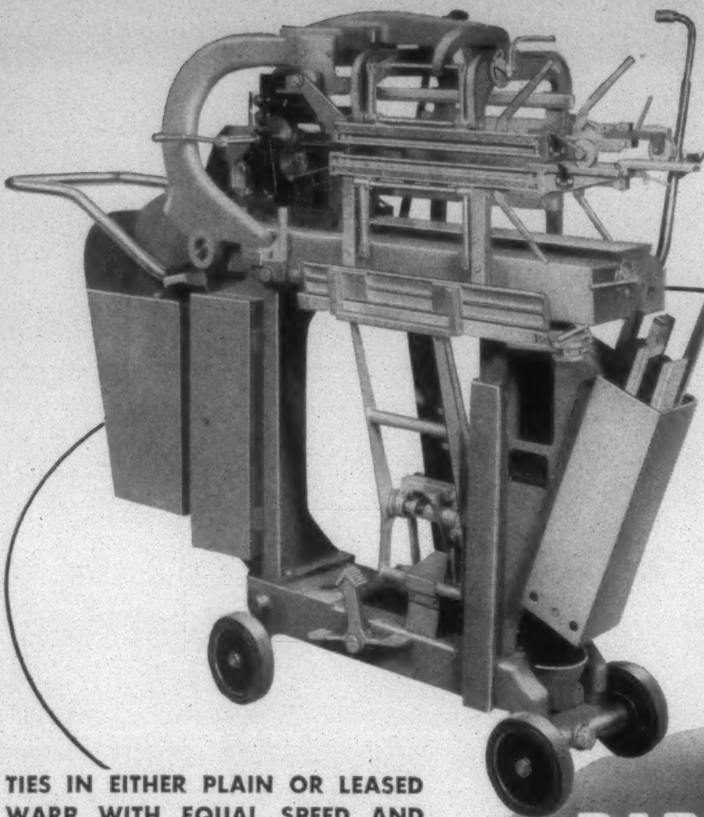

2-3 Convertible Hank Counter


New "Dozens" Counter for Glove and Hosiery Mills


Linear Counter with Double Wheels


2-3 Convertible Pick Counter

. . . all these and scores of other types . . . Send for Catalog T-48



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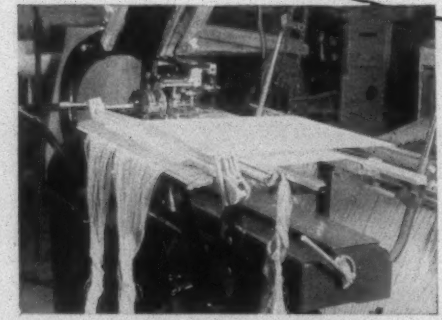
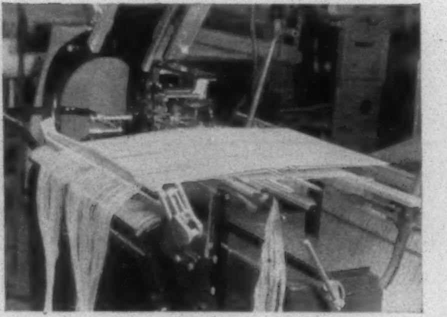
COLMAN

Reduce Costs!
Increase Production!
Improve Products!

TIES IN EITHER PLAIN OR LEASED WARP WITH EQUAL SPEED AND EFFICIENCY



Model "LL" machine set up for tying in a plain cotton warp.



The same machine as above, now set up for a leased cotton warp.

BARBER-COLMAN *Portable* WARP TYING MACHINE

A Barber-Colman PORTABLE Warp Tying Machine can be a *very profitable* investment for you. This machine offers a fast and accurate means for tying-in new warp *at the loom.* It can be handled in confined and hard-to-reach places and in loom alleys as narrow as 12". Overall production capacity averages 3500 to 4500 ends per hour, higher on high sley warps. Models are available to handle cotton, wool, worsted, silk, or synthetics (including monofilaments) and plain warps or leased warps or both. Tying is accurate and uniform and so much more efficient than common hand methods that the machine will pay for itself quickly in cost savings *even when not in constant use.*

SEE THIS MACHINE AT THE Atlantic City EXHIBITION May 8-12

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

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ROCKFORD • ILLINOIS • U. S. A.
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Celanthrene*

Fast Pink 3B

. . . a direct dyeing acetate color, suitable for shading and the production of a wide range of pastel shades of pink, lilac and lavender on acetate rayon and nylon.

Celanthrene Fast Pink 3B is recommended for use on fabrics which must withstand light and laundering. Fastness to crocking, hot moist pressing, perspiration, dry cleaning and sublimation is very good. Light fastness on nylon is superior to that of most acetate dyes on nylon.

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Du Pont Dyestuffs

DU PONT

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CUT COSTS • INCREASE EFFICIENCY
STEP UP PRODUCTION

With Sheet Metal Parts of PROVEN QUALITY

Made and Delivered with DEPENDABLE SERVICE

Production profits from beginning to end are yours—*if* your preparatory machinery is geared for efficient, economical volume production. One of the South's oldest and most experienced sheet metal plants is prepared to help you do just that. Through the years this organization has earned a reputation for top quality products, painstaking workmanship and reliable service. You will find that this kind of special knowledge and experience applied to your maintenance problems will make an important contribution to continuous, profitable production.

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wire or phone

GASTONIA TEXTILE SHEET METAL WORKS, INC.
GASTONIA, NORTH CAROLINA

A SHEET METAL WORKS SERVING TEXTILE MILLS

"Know why that suit stays so new-looking?"
"Sure, it's CUPROFIXED!"

Direct dye with Cuprofix

and SAVE the extra COST of vat colors

When you direct dye men's suiting fabrics in the yarn or piece with CUPROFIX colors and CUPROFIX after-treatment, you can satisfy consumer requirements for fastness without the expense of vat dyeing.

CUPROFIX-dyed fabrics are fast to home laundry, light, perspiration, wet crocking and hot wet pressing. Fabrics requiring resin treatment are processed much more efficiently and with even faster results when CUPROFIX is included in the resin bath. CUPROFIX does not affect anti-crease qualities or tensile strength.

How Cuprofix Saves Money

Many mills all over the country are now direct dyeing many types of fabrics the CUPROFIX way and have reported substantial savings in dyestuff costs—particularly when dyeing darker shades.

Write for specific information telling how CUPROFIX can help you with your dyeing problem.

Fast to Light · Wash · Perspiration
Pressing · Cleaning

CUPROFIX

BY SANDOZ

SANDOZ *thinks ahead with textiles*

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SANDOZ CHEMICAL WORKS, Inc.
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N. Y. Application laboratories and
stocks at Boston, Philadelphia,
Charlotte, Los Angeles, Toronto.
Other branches at Providence,
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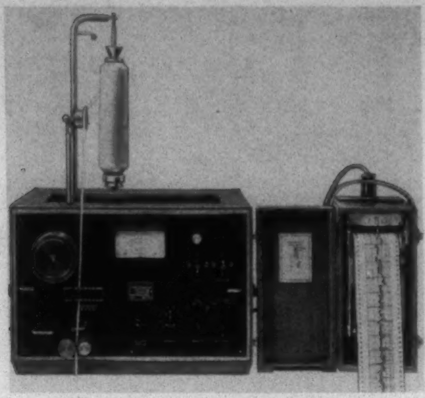
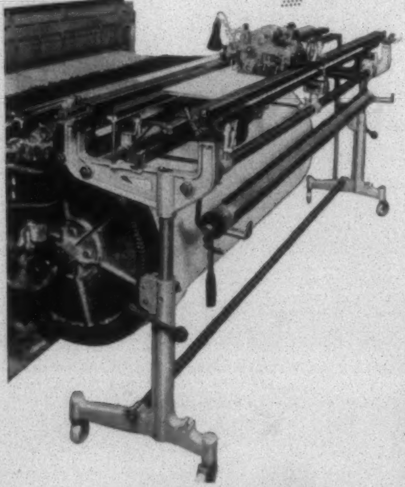
Cut your Costs with USTER Equipment



"Uster" Evenness Tester

The standard by which yarns are made, bought, and sold. Handles silver, wool tops, roving, and yarns. Request Booklet #102 for details.



"Little Uster" Warp Tying Machine

Saves 30% to 70% in tying time on any material. Ties portable or stationary. Ties up to 118 inch warps at one "bite". Incomparably fast, efficient, and versatile. Request Booklet #72 for details.

"Turicum" Reaching-In Machine

Saves labor and increases output. Simplifies the entire drawing-in operation. Request Booklet #7 for details.

In Canada:
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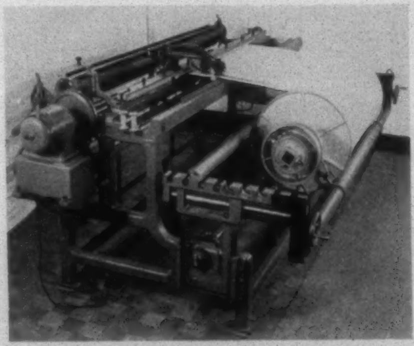
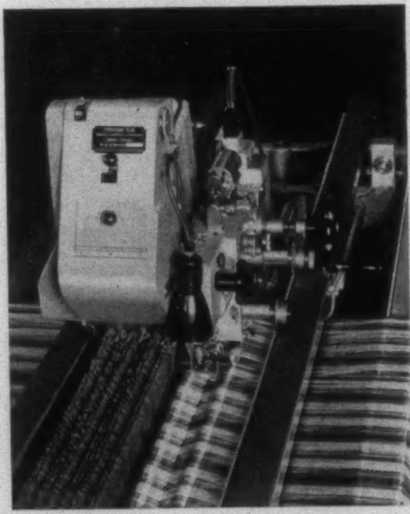
47 Colborn Street
Toronto, Ontario



Gentsch Warp Leasing Machine

Automatically puts an "end-and-end" lease in warps at the rate of 12,000 ends per hour. Requires only a few minutes to load and unload. Request Booklet #12 for details.



"Uster" Dropper

Automatically pins up to 18,000 open drop wires per hour—10 to 20 times faster than hand-pinning. The "Uster" Dropper shortens and simplifies tremendously the entire pinning process—saving hours of loom down-time. Request Booklet #47 for details.

USTER

Visit the "Uster" Booth at the American Textile Machinery Exhibition, Atlantic City.

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Boston Providence Philadelphia Chicago
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Atlanta New Orleans Chattanooga Toronto

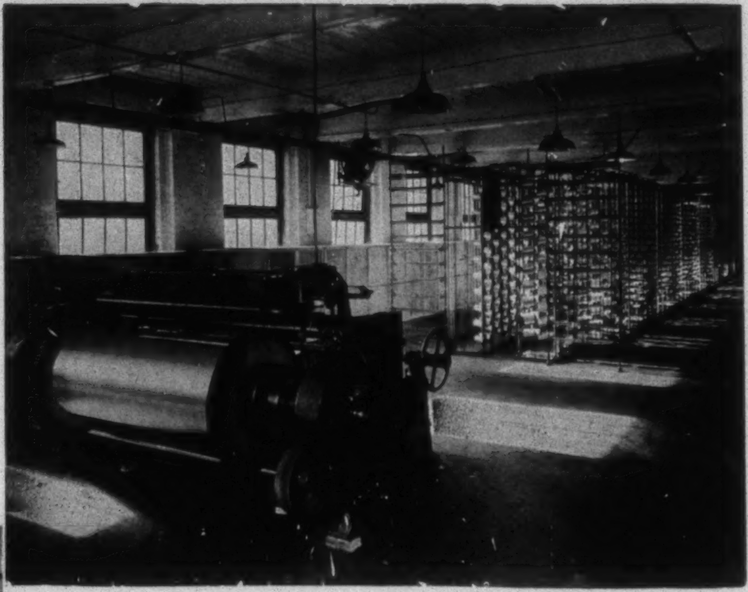
NATIONAL N DYES

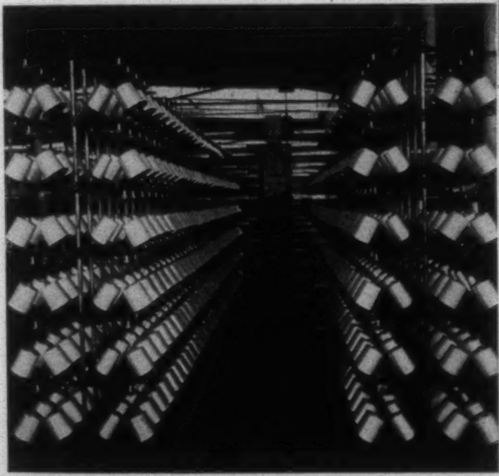
TI

TEXT

The **Cocker** High Speed Spindle Driven Warper

Shown here with Horizontal Type Creel





Shown here the Cocker Vertical Type Magazine Creel for handling yarn or cones—also used for handling combination yarn from spools

Static Eliminator

Electric Control of Warp Speed

Electric Indication of Speed at all times

Pushbutton Controls throughout

Motor Mounted Magnetic Brake

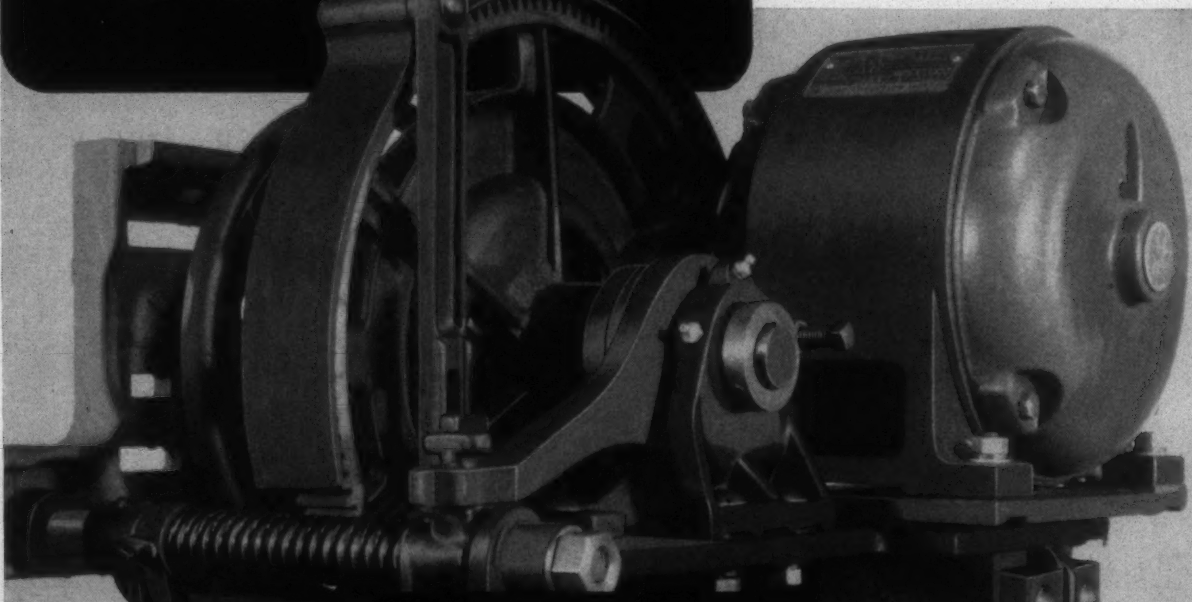
Hand Operated Rheostat, for changing operating speed at any time

For full information on this and other Cocker warp preparatory equipment, write or wire our home office.

Cocker **Machine and Foundry Co., Gastonia, N. C.**

WORLD'S LARGEST DESIGNERS AND BUILDERS OF COMPLETE WARP PREPARATORY EQUIPMENT

Dependable
DRIVING POWER



For Your
LOOMS

New and modern in design, yet proven in operation, the Bahan Model "C" Motor Drive is a dependable and efficient unit. Rigidity is assured by mounting directly on loom side. Installation time is shortened, and danger of bending crankshaft is eliminated by use of a tapered bushing. Users report a "new low" in friction loss. Ideal for use with new NEMA frame motor. Careful assembly and testing of each unit before shipment.

The Bahan Model "C" Motor Drive features two ball thrust bearings, tapered bushing, and grease-lubricated bearings. Furnished complete with new hand wheel (or brake wheel), together with all necessary bolts, nuts, and washers. Specify whether 10-Pitch or 8-Pitch gears. Furnished complete with motors.

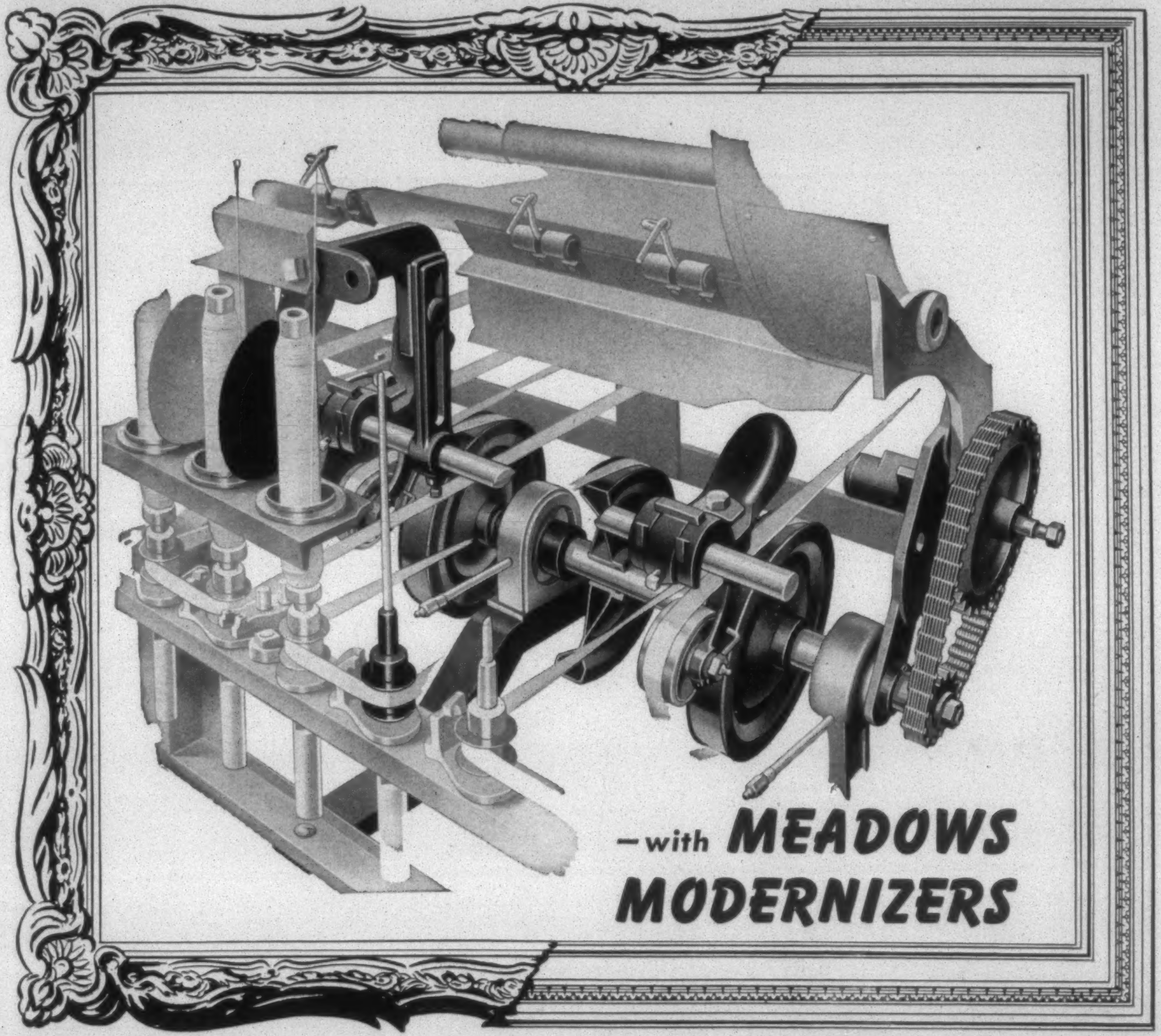
Write for costs and details for your specific needs.

BAHAN TEXTILE MACHINERY CO., Inc.

DESIGNERS AND MANUFACTURERS OF RELIABLE TEXTILE MACHINERY FOR OVER 30 YEARS

Greenville, South Carolina

NEW LIFE TO OLD FRAMES



OLD FRAMES can be fashionable when modernized with Meadows Conversions. In fact, old model band-driven or tape-driven frames can actually be made competitive with new frames at a *fractional part* of the cost of new equipment. Meadows Conversions consist of ball bearing tape tension pulleys, light weight solid aluminum separators, silent chain drive, individual drive pulley, and ground and polished shafting mounted on heavy duty ball bearings. With them you are assured of *low power consumption, no tapes off* due to choked or sticky pulleys, *less wear on yarn, increased output* and *no more cylinder trouble.* More than eight million spindles are today turning out more and better yarn at lower cost through being equipped with Meadows Modernizers. Why don't you investigate — *today!*

MEADOWS
MANUFACTURING COMPANY
ATLANTA, GEORGIA

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Highly skilled technical service...widely experienced men make on-the-spot studies concerning your production problems.

Practical engineering service...to help you apply new methods, new procedures, in your production.

These service links can be extremely valuable to you in your various production problems . . . to help you make better textiles more efficiently and economically with such uniform quality products as:

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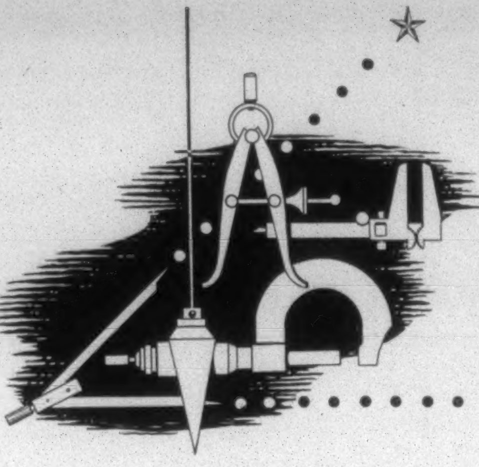
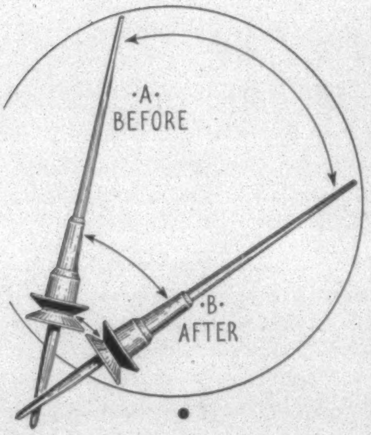


precision

Gossett experience *plus* Skilled technicians *equals* Precision-manufactured textile machinery and parts

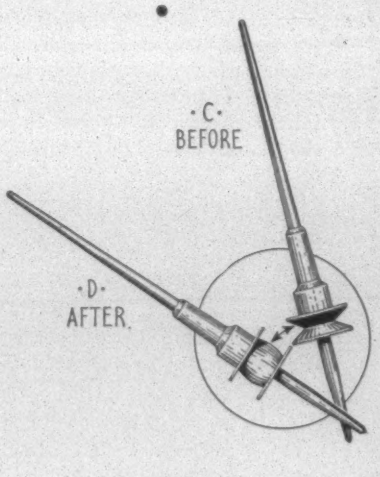
For example . . . .

Precision-reconditioned Spindles



A. This spindle is badly worn. Note the wornout top, acorn and drive . . . Now look at spindle (B) . . . the same spindle reconditioned by GOSSETT master technicians.

B. The worn top has been cut off and a new piece of spindle steel butt-welded onto spindle blade and the top ground to specified size. We also build up the worn top with hard chrome plate and grind the top to size specified. After retopping blade, if necessary we put on a new whorl (made by GOSSETT).



C. This is a conventional band driven spindle. Mill specifications called for a tape driven spindle so, GOSSETT technicians converted at a fraction of the cost of complete spindle replacement.

D. We removed the band driven whorl and put on a new GOSSETT tape driven whorl. Then we arranged the band driven spindle base so that it can be used with tape driven spindle. Takes know-how and equipment plus skilled technicians.

B. W. GOSSETT, PRESIDENT E. C. MASON, SALES MGR. H. A. HAYNES, SOUTHERN REP.

GOSSETT MACHINE WORKS, INC.
GASTONIA, NORTH CAROLINA

PRESTO
Floor Finishes

DRY IN AN HOUR

MONTHS OF LASTING WEAR!

Blocking off floors to foot traffic for a day or more while refinishing your floors with slow drying materials is no longer necessary. Dolge-developed PRESTO PRIMER and PRESTO FINISH meet your urgent traffic needs by reducing floor finishing time to a minimum.

Here's all you do: Start with a coat of PRESTO PRIMER applied with lambs wool applicator, fiber mop or brush. See how quickly it penetrates into the flooring . . . how it seals each tiny crevice with its protective coating. For a satin finish, make the second coat PRESTO PRIMER too. If a high, glossy surface coat is desired, make the second coat PRESTO FINISH.

Under normal conditions, both PRESTO PRIMER and PRESTO FINISH are dry and ready for traffic within ONE HOUR after application. They beautify, protect and preserve your flooring. They mean moderately priced, long lasting and FAST floor maintenance!

Consult your Dolge Service Man regarding PRESTO, DOLCO-WAX and other high-quality floor maintenance preparations.

PRESTO
THE C. B. DOLGE CO.
WESTPORT, CONNECTICUT

WHAT OTHERS ARE SAYING

Diabolical Legislation

F.E.P.C. strikes at the very core of freedom. It takes away constitutional liberties of our people generally that certain politicians may gain the favor of the misled few.

As we have noted before, it should be labeled, instead, the unfair employment practices bill, for unfair, indeed, is what it is.

Southern Democrats have counted noses and found 108 representatives who will use "every honorable means and parliamentary procedure" to defeat the measure. But 108 are not enough. Fight though they may, their moves, at best, cannot be expected to succeed, though we hope we are wrong in this deduction.

We could scream to high heaven, as we have done on numerous occasions in these columns, about the iniquities of F.E.P.C. and support these protests with logical arguments, but the die is cast, and our words would be of no avail.

When it reaches a point where a person who is competent must stand aside for one who is not, which happens under F.E.P.C.; when it is legislated that an employer hasn't the right to choose his workers without government interference, one wonders just what the next proposed regulatory step will be.

To tell a person whom he must hire with his own money, to tell him he must take into his organization persons entirely unsuited to his needs, or risk court action for not doing so, is contratory to the very heart and core of American liberty. Such a law takes away, rather than gives, civil rights.

F.E.P.C. isn't the stopping place. It's just one of the steps toward that complete regimentation into which some selfish persons would lead us. — *The State*, Columbia, S. C.

Free Enterprise Facts

FREE enterprise and Socialistic government are being constantly compared, wherever people meet—in government buildings, in railroad houses, in factories, on the farms, on college campuses (it's the official 1950 college debate question), on the radio forums and in our legislative halls. Yes, millions of people are involved in conversation every day on this subject, yet, how few of us are equipped as spokesmen for the real American way. Yes, we are talking and with a note of disgust and distrust in many instances, but we are doing nothing about it while drifting fast toward Socialistic measures.

A big industry in Illinois recently made a down-to-earth presentation on the American way of life to its entire personnel, and then asked questions which were answered and later analyzed. Dr. George S. Benson tells us that the white collar personnel knew less about our American system than did the men and women in the shops, along the assembly lines. Dr. Benson has just completed a Mid-Western lecture tour presenting the free enterprise story to many thousands of students, teachers, and industrial foremen, which story I would like very much to have heard, for American society as a whole has no adequate knowledge of our freedom system and the sorry record of Socialism. We all need the energy to get the facts, the wisdom to accept them, and the courage to use them. We need more Americans like Dr. Benson, speaking up, with authority, for America.

How many of us could debate with a glib Socialist? How many of us could uphold the merits of our American system intelligently? How many of us are going on accepting comfort, happiness, reasonable security as our heritage with the idea that we can't lose the benefits the free enterprise system has given our people?—*Joanna News*, Joanna (S. C.) Cotton Mills Co.

The Bunk!

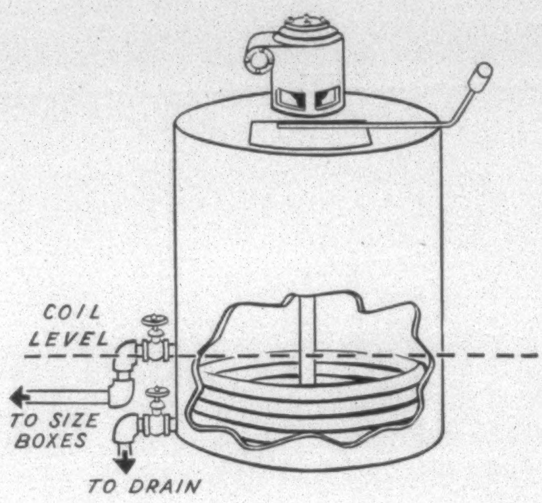
JUST last week it was reported that "the biggest single worry now plaguing administration economists" is the increasing refusal of people to risk new savings in helping expand industry and improve its products and services. It was even hinted that some top union economists also are worried about this and seriously considering coming out soon for *cutting* instead of raising corporate taxes.

But now plans are afoot from many similar sources to lift some excise taxes

SLASHING HINTS

NO. 10 OF A SERIES

STORAGE KETTLES



BE careful never to allow the size level in the storage kettle to get below the steam coil, except while draining. The size film on the coil exposed will dry out and bake on the coil, causing poor heat transfer as long as it stays there, and hard size lumps when it leaves. To be on the safe side, cut off the steam while draining.

This trouble can be prevented if the storage kettle has two outlets: one above the coil for pumping to size boxes, and one in the bottom for draining and cleaning.

HEADQUARTERS FOR SIZE

SEYCO Sizing is scientifically formulated to produce a tough, elastic, pliable film, which lays the fibers smoothly; reducing friction, breakage and shedding to the minimum.

SEYCO Sizing is sufficiently anchored by proper penetration, but is easily removed. Its deliquescent feature protects against over-drying.

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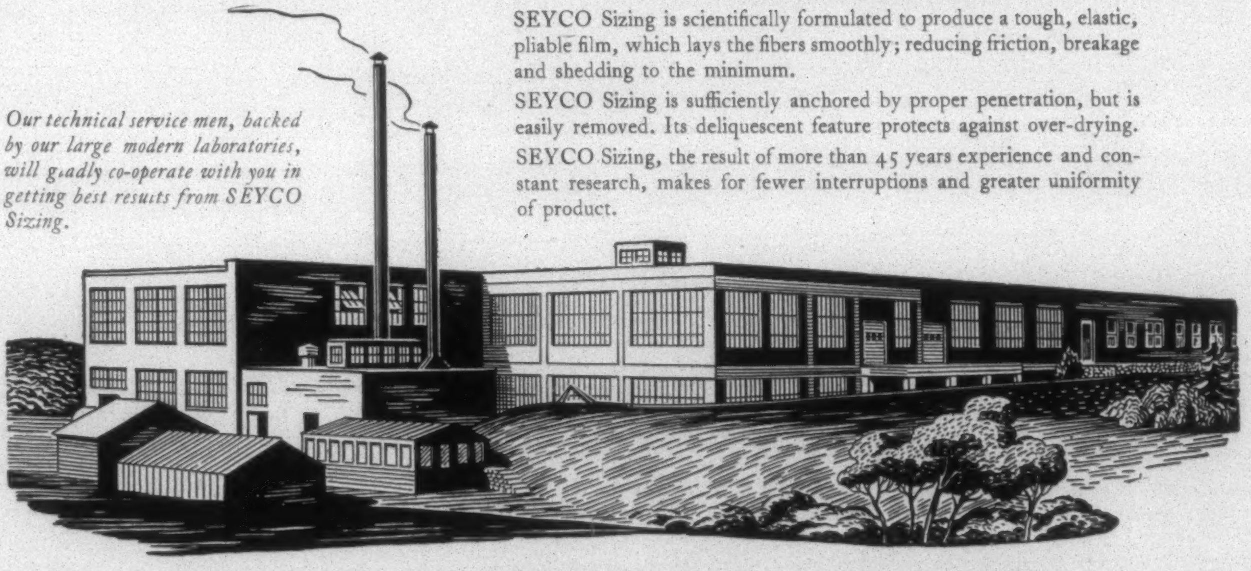

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off individual citizens, and then to add that amount to the taxes which corporations are already paying. Will lifting these taxes off consumers and putting them on corporations really mean less taxes for you and other individual citizens? No! That's the bunk!

Those individual citizens, who might thus be spared some *direct* taxes, are exactly the same individual citizens who are the customers, the employees, and the owners of these corporations. They would then be paying *indirectly* the very taxes which supposedly had just been shifted off their shoulders.

Corporations are simply clearing houses—with no resources within themselves. They are simply the agents of the public . . . the agents of customers, employees, and owners for the exchange of goods and services . . . the agents of government for the collection of taxes from customers, employees, and owners. Therefore, the act of apparently relieving individuals of taxes by putting those taxes on corporations is—as shown in our four little pictures—simply economic bunk.

The government is, of course, going to have its taxes. Any taxes not collected directly and visibly are going to be collected indirectly and invisibly. But, if taxes are collected indirectly from the public through taxing corporations, the individual citizen still pays the bill through higher prices he pays as a customer, or less income he gets on the savings he has invested in corporations, or through lower wages or less work he gets as an employee.

It is especially wrong for anyone to think that these taxes can be shifted over so that they come entirely out of the income being received on savings. As indicated above, both Administration and union economists are already worried about people with savings being so discouraged. They are in favor of savers getting new encouragement to invest.

This discouragement of saving and investment during recent years has resulted in everybody bearing a further and even higher tax than is evident even in the high totals of direct and indirect taxes now actually collected.

By discouraging private saving for investment in the industrial improvements which result in more and better and cheaper products, not only have individual workers been deprived of higher pay and higher buying power, not only have individual customers been denied the quality and value that would have made them more eager to buy, but the living standard of the nation is lower than it would have been if we had continued the high incentive to save and invest.

Let's not be fooled by the idea that citizens can escape taxes by having corporations pay them. The government collects from corporations just the taxes that it has had the corporations first collect from the public. One dollar out of every $3.86 you earn goes for federal, state, and local taxes. The only way for you to pay less taxes is for your government to spend less of your money.—*General Electric Commentator.*

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AMERICAN TEXTILE MACHINERY EXHIBITION
ATLANTIC CITY
MAY 8-12, 1950

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One year payable in advance	$1.50
Other countries in Postal Union	3.00
Single copies	.15

Will The Old Story Repeat?

We hear many stories about mills increasing the number of operating hours by starting at midnight Sunday and running until midnight Saturday night, and we are wondering if the old, old story of killing a market by overproduction is to be repeated.

Last Spring and Summer many mills heavily curtailed their production because prices were below cost of production.

Then came a somewhat unexpected improvement of general business and consumers of textiles found the supply very limited as the result of the period of curtailment and the demand caused prices to advance from the low level which had existed.

With better prices there came increased operating hours and that trend has now reached a point at which increased production is causing alarm.

A recent weekly news letter of one business forecasting firm says:

> *So textiles are a sour spot,* but the mills don't recognize it, keep on pouring out goods at firm prices as if demand had not declined. This is likely to bring a *break in textile market* . . . in the late spring.

The forecasting firm which wrote the above has sometimes been wrong and it may be that they are wrong again, but it is possible that they are right this time.

Operating more hours and increasing production cuts the overhead cost per pound but too many yards being produced can in a single day reduce the price per pound more than the overhead reduction.

We urge caution in starting third shifts where none exist and hope that the old, old story will not be repeated.

Every mill which increases its operating hours does so with the hope that others will not follow their example but always the total spindle and loom hours increase.

Mrs. Waring Vituperates

Federal Judge J. Waties Waring of Charleston, S. C., and his wife became friends with a couple from Detroit, Mich., and some time later Judge Waring divorced his wife and married the Detroit woman who had also conveniently divorced her husband.

Such proceedings did not make a big hit in Charleston where the first Mrs. Waring was very highly regarded and the new Mrs. Waring was not generally accepted socially and Judge Waring and his new wife were not elected to membership in the St. Cecilia, a social club in which Charlestonians take a great deal of pride.

A short time later Judge Waring, as a Federal judge, ruled that Negroes had to be allowed to vote in the Democratic primaries in South Carolina.

The people of South Carolina felt, and we agree with them, that any group of citizens might take a vote among themselves to decide upon the candidate for political office whom they would support and as free men they had a right to decide whom they would admit to their group.

A man might ask a group of friends to meet at his home to decide whom they would support for constable and they might make the decision by taking a vote of those present.

A primary is nothing more or less than a group of people deciding whom they will support in a coming election and the group should have a right to decide whom they will allow to assist in making the choice.

Judge Waring knew that his decision would arouse resentment among the white people of South Carolina.

The extent of that resentment is evidenced by the statement of Mrs. Waring that since the date of that decision no white person has put his or her foot in her door.

Recently Mrs. Waring has been making addresses and broadcasts in Washington, D. C., and making many silly and ill-mannered statements.

In these she criticized the press of the Deep South. "The local press, the Deep South press I call it," she said, "has sunk below the level of people."

Every time Mrs. Waring has made a speech or broadcast, she has seemed to justify the people of Charleston in not accepting her socially.

One of the silliest of her statements has been:

> Let Negroes marry white people if that's what they want.

She does not have enough intelligence to realize that Negroes have no desire to marry white people.

During the 85 years since the Civil War not over ten Negro women have ever married white men and by the same token not over ten white men have married Negro women.

We challenge anyone to disprove that statement.

It is true that a limited number of white women do marry Negro men but seldom do such marriages last long nor do such couples live normal lives or raise families.

As long as the men of one race do not marry the women of another race there can be no amalgamation.

Lions, tigers and leopards are members of the cat family but they have lived together in the jungles of Africa for thousands of years without any known records of cross breeding. You can sit in duck blinds and see large flights of wild ducks. They may be so far off that you do not know whether they are wiggins, mallards or canvasbacks but you do know that they are all of one kind. For a thousand years or more they have been going to Canada to breed but

DON'T LEAVE *Joe* BEHIND!

Of course *you're* going to the American Textile Machinery Exhibition in Atlantic City. You're well aware it's going to be the largest and most comprehensive exhibition of textile machinery in the history of the industry. You realize that you'll see there the latest equipment and devices developed by hundreds of manufacturers. You know *you* can't afford to miss it!

But how about Joe? Joe may be any one of the key operating men in your mill. He's part of your supervisory team; his opinions are valuable. He knows the limitations of your present machines . . . can see, at a glance, the benefits to be derived from the new machines exhibited . . . can appraise, from a technical standpoint, the improvements made in older models. He should play a vital part in the selection of new machinery to increase the efficiency of your mill. You can't afford to have *him* miss it either!

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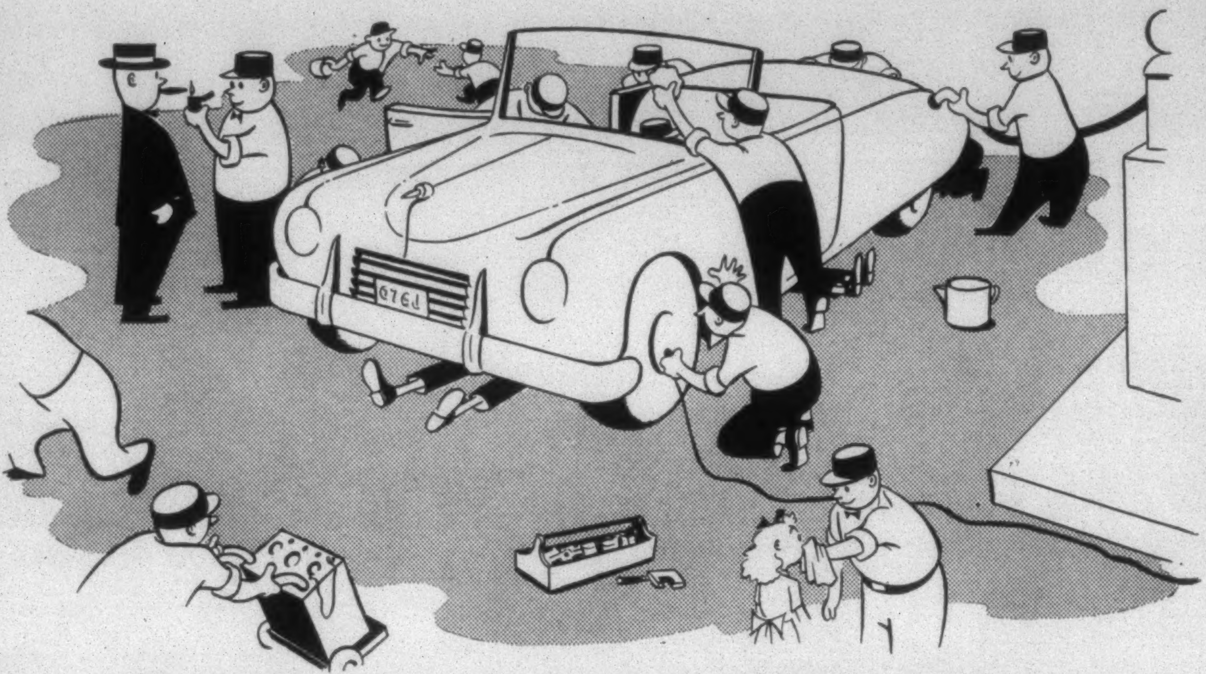

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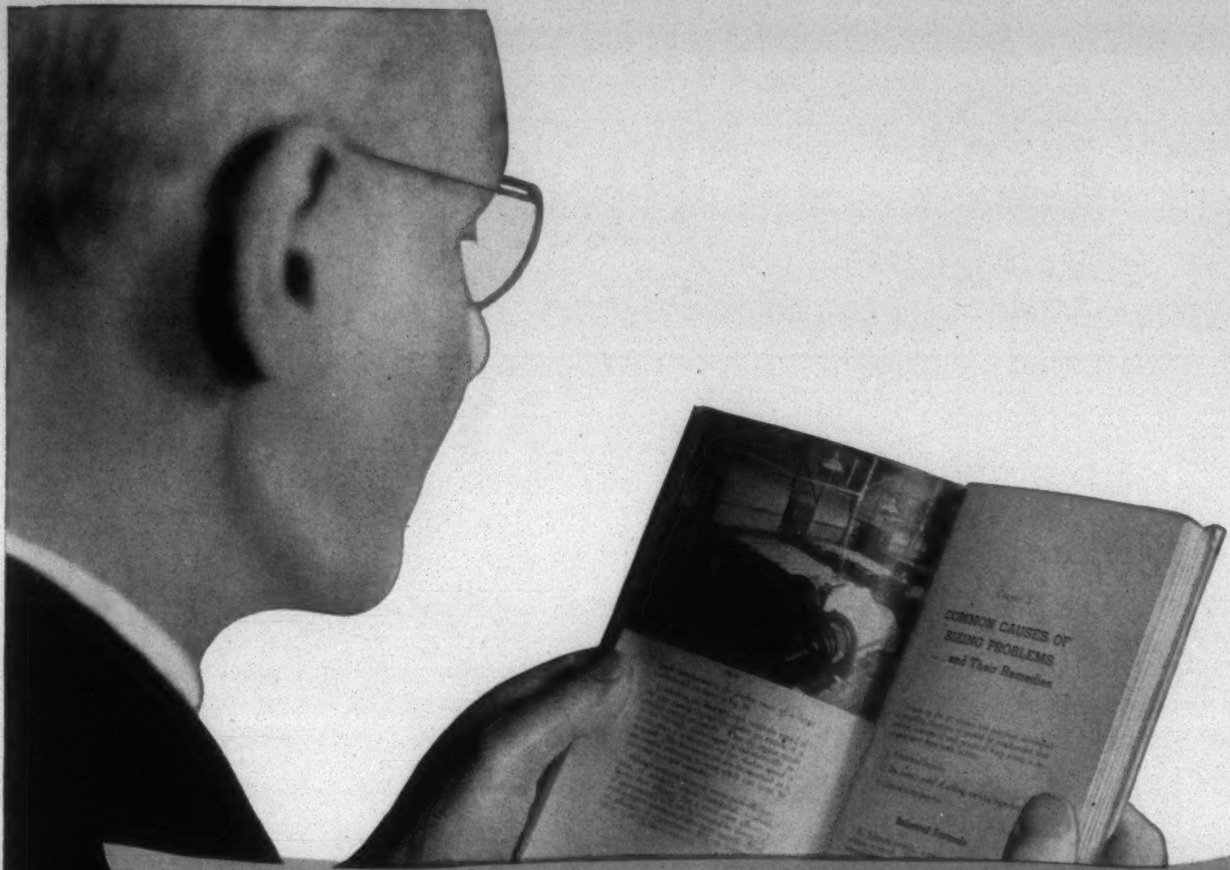

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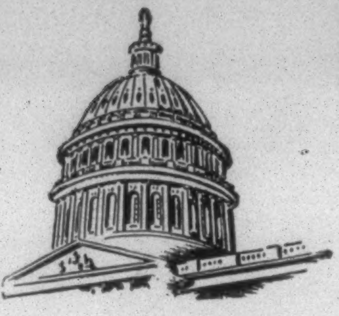

WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

Truman is meeting growing difficulty in forcing F.E.P.C. through this Congress. One reason is growing realization that passage will break down all racial lines in government service, and lead to racial troubles in other spots. While Truman aides insist the proposal applies only to discrimination in work and jobs, it's becoming increasingly evident the end product in mind is social equality and inter-marriage.

House action in passing the F.E.P.C. substitute of McConnell (R., Pa.) stunned both Republican and Truman top leaders. Southern senators, with three exceptions, will oppose any action on F.E.P.C. at this session, but if necessary, they will fall back on the Republican bill, which calls only for voluntary co-operation and educational effort.

Majority Leader Lucas says at least three other important bills, including housing aid, will be called up in the Senate before he will reach F.E.P.C. late in April. He declined to affirm that Pepper asked him not to call up F.E.P.C. before the Florida primary May 2, or "run-off," if there is one.

Senator Byrd (D., Va.) told Truman he has only three more steps to go before as fully socializing America as Britain is today. The steps, he said, are socialized medicine, socialized agriculture, and extension of socialized housing. The sure non-stop high-speed road to each, he said, is chronic deficit spending.

A bill to revive the C.C.C. of pre-war days has been brought in by a group of Truman senators, including Murray, Pepper, Green, Kilgore, Glen Taylor, Humphrey, Neely and Herbert Lehman. They call it a bill to relieve growing unemployment, and seek $400 million a year.

Agreement in the coal industry to end the Lewis strike could have been reached months ago, say the mine owners. Lewis acted quickly to end the strike when Truman asked mine seizure, and Senator Taft and others said this should include seizure of the union, along with its welfare fund. Taft had an amendment to this effect to offer in the Senate.

Another battle over the miners' welfare fund is looming in Congress. Several resolutions are pending for a full investigation of labor and other conditions in coal mining. Amendments will be offered for a thorough investigation of the welfare fund, and how it has been spent.

Administration leaders are jockeying for tax changes that will save the Treasury from loss through repeal of excise taxes.

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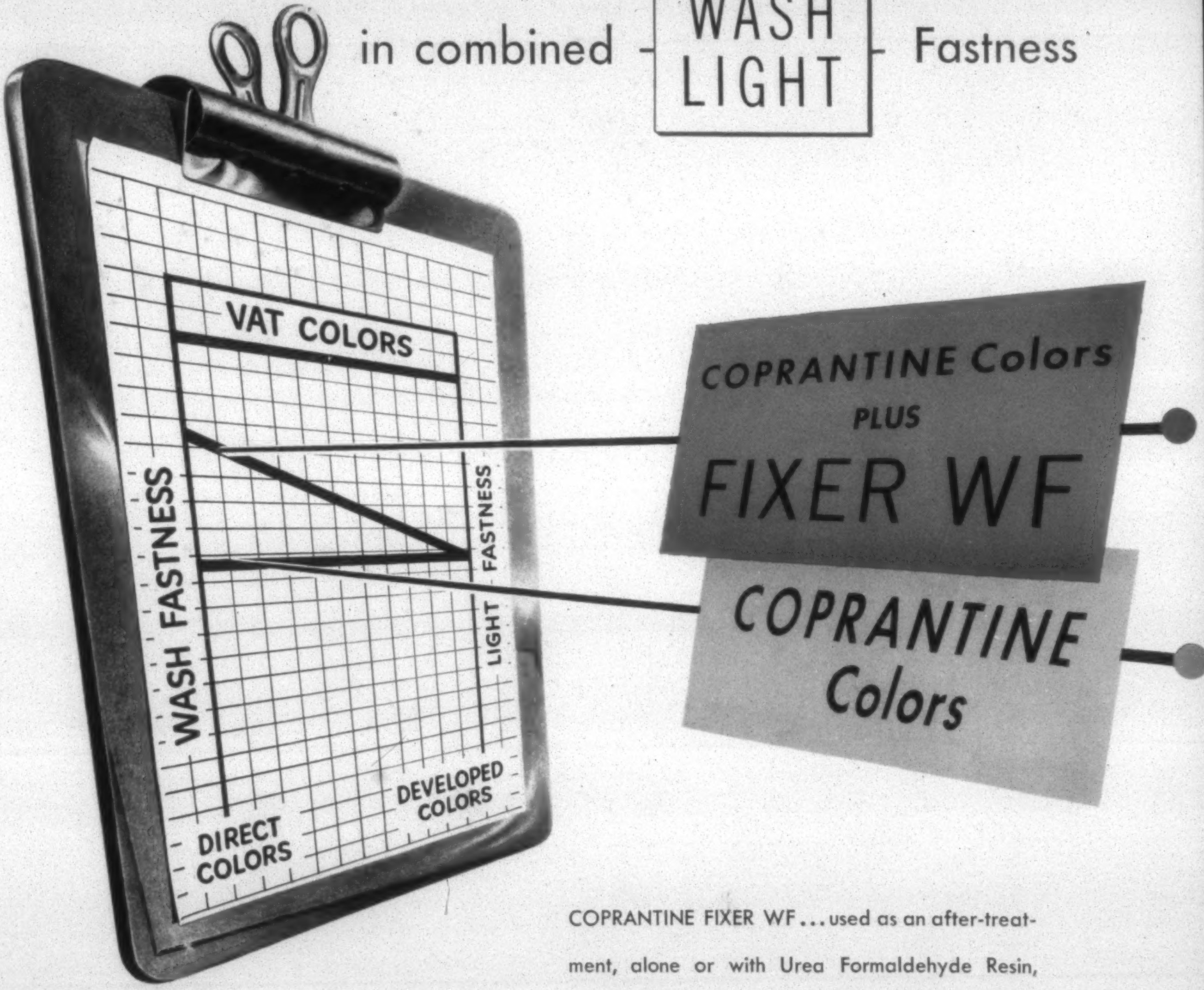

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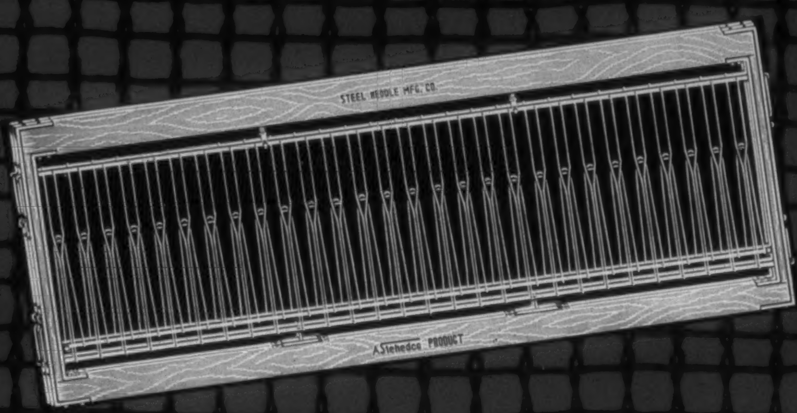

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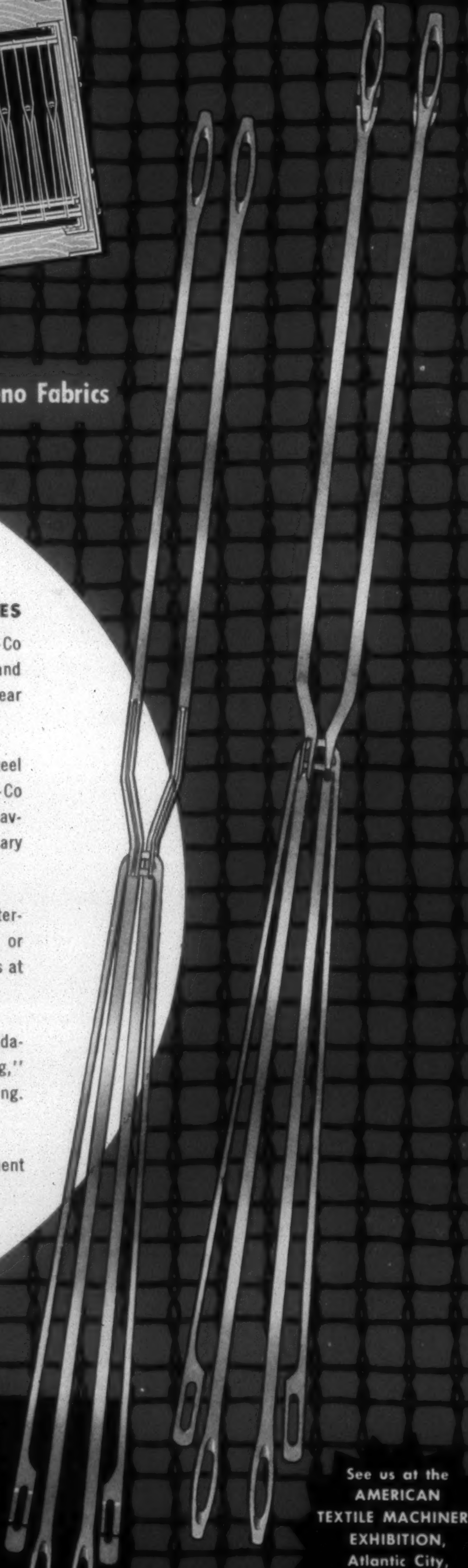

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A proposal, which has Truman's tacit blessing, would compel corporations to pay their corporate taxes in the first six months of the year they are due. Opponents say it is a step toward doing the same thing with personal income taxes.

Byrd's Committee on Unessential Government Spending will get a new and larger appropriation as a result of the effort of Senator Humphrey (D., Minn.) to put it out of business. Senators say the committee is reclaiming many times its cost in pointing out federal waste and squandering.

New Brannan plan bill to hold up farm prices provides penalties on farmers for violations that rival those being laid on British farmers. There would be jail and fines for those failing to comply, together with penalties of enforced reductions in cultivated acreages.

C.I.O. is given credit by House Republicans for invention of the new Brannan plan. Intent, they say, is to silence farm protests to big wage increases and soaring costs of living while farm prices sag. The plan would draw a subsidy from the Treasury, and regiment farmers as fully as workers in C.I.O. unions.

Union leaders are asking Truman to put the government deep into lending to little business through a chain of government banks within the Federal Reserve system. It would set a precedent for "government commercial banks" of the same kind. House minority leaders say it would set a precedent for government taking over all banks. Truman is expected to go ahead on the project.

The Supreme Court has ruled the Federal Trade Commission has free and unlimited access to books of any company (or association) that has been hauled before the commission, or into the courts on a commission complaint. This gives the F.T.C. power to regulate business practices and conduct in greater measure than ever contemplated in a bill in Congress.

Bureaucratic government is expanding by leaps and bounds through ever-widening interpretations of laws by bureaucratic agencies. The Supreme Court is consistently supporting the trend, with the result it appears the powers of Congress are being steadily whittled down. Republicans call it rapid socialization.

Growing Socialism and Communism in government, with Truman a willing prisoner in the hands of socialistic planners, is the issue on which Republicans will seek to regain control of Congress this year. The plan ignores the "me too" Republicans in the House and Senate, who generally support Truman proposals.

Truman advisers are telling him to discount the strength of stalwart Democrats in the South. They claim the orthodox Democrats are too weak for effective action, and urge a strong Truman man to oppose Byrnes in South Carolina, and Byrd in Virginia.

Congress is not expected to act on proposals this year to make labor unions and similar groups subject to anti-trust laws. But the issue will figure strong next year, and will probably include moves to make private welfare and retirement funds subject to government supervision and regulation.

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During the past few years, H & B American Machine Company has devoted most of its research and development work to the improvement of high-draft spinning. H & B recently announced two new systems for cotton spinning: — the H & B Casablancas Super High-Draft System and the H & B Casablancas Four Roll High Draft System. Now H & B proudly presents its Casablancas S-3 System for synthetic fibers.

Developed primarily for synthetics and blends, the system is so flexible as to permit the spinning of all fibers from 1" to 3" in length. A Three Roll System with double aprons between the front and second lines, it features spring weighting, a new type saddle, and a cradle design with interchangeable platforms for different staple lengths. In a few minutes it is possible to change these platforms so that a frame which has been spinning staples up to 1¾" will spin staples up to 3";—no changing of cradles, belts, or roll settings.

Offering a drafting range of from 14" to 40", the H & B Casablancas S-3 System, utilizing a combination of *apron length, tensor opening* and *platform position,* assures complete fiber control, regardless of staple length.

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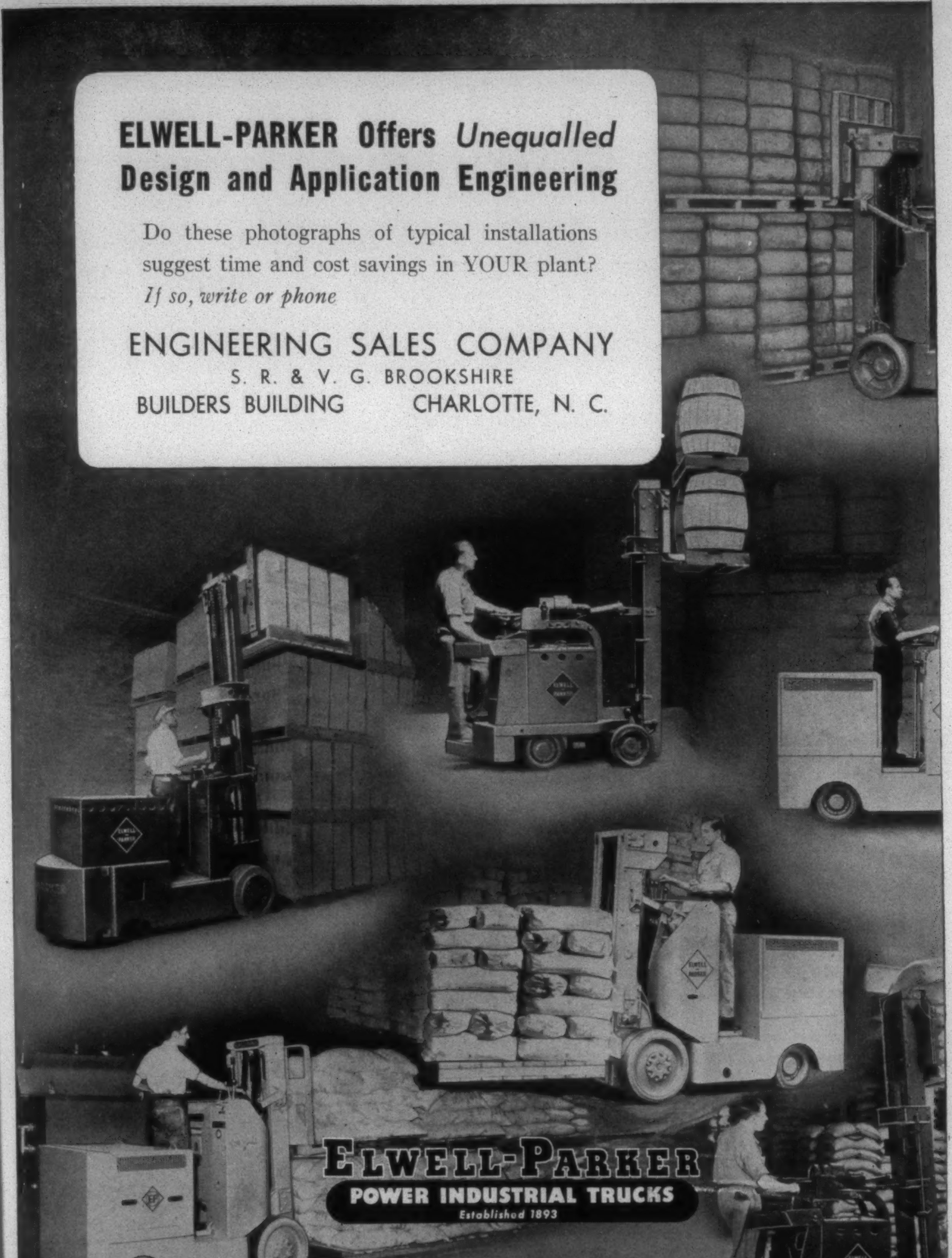

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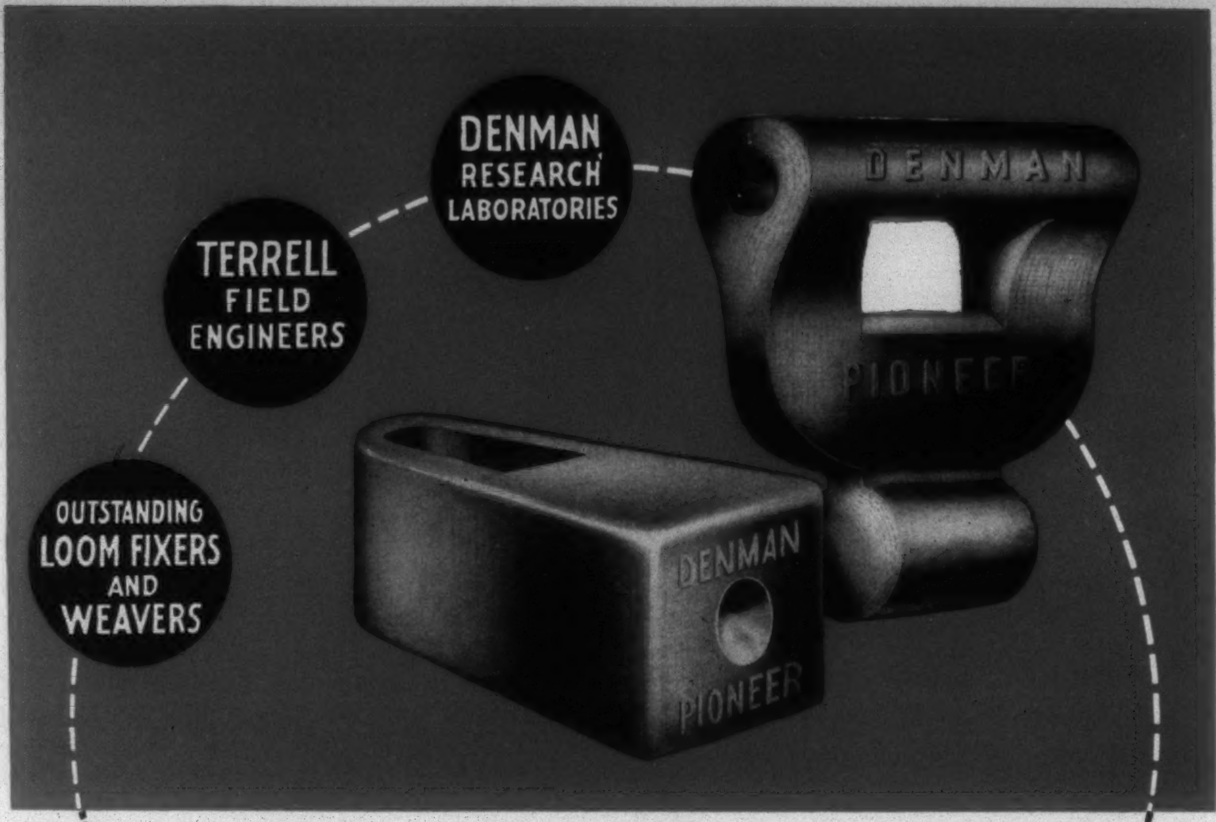

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textile bulletin

VOL. 76 MARCH, 1950 NO. 3

WHO IS BEING FOOLED?

Managment? Employees? Ourselves?

By JETT M. POTTS, Director of Safety & Insurance, West Point (Ga.) Mfg. Co.

FREQUENTLY we hear of plants or even companies that have gone several million man-hours without a lost-time injury, but when we become anxious and seeking information concerning the set-up of their safety programs, we are astonished to learn they have none. Then we think that some of us are putting too much effort and money into safety.

Then we go deeper into the matter in conversation with individuals who are acquainted with the facts, and are amazed to find that reports have not been made of even specific losses, such as an amputated finger. What is gained by this approach? It does not relieve us of the financial loss. It does not prove us to be honest and sincere with our employees. It does not place us in a better light with our officials. It does not satisfy our own consciences.

The companies with which I am fortunate to be associated, employing over 8,000 people, are carrying on a safety program that we believe equal to any in the textile field, and it is quite discouraging and embarrassing, when we are called on the carpet, to explain why we are showing as many lost-time accidents as all the other companies in the state combined. Where have we failed—and why don't we do something about it, we are asked. Where have the excellent men and nurses associated with us in accident prevention fallen down? Have our personnel departments slipped up and hired cast-offs from all the other plants in the country? We don't think so!

We believe our employees are just as intelligent and anxious to co-operate as any group in the United States. No, we do not believe we employ only dumbbells, who care nothing about themselves, their families, or their jobs. On the contrary, no finer people can be found anywhere.

We who are given the responsibility of safeguarding the employees of our companies at West Point are constantly on the alert to see that safe personal work habits are formed and that training and instructions are carried out. Our machinery is as well guarded and in as good condition as any we have been privileged to see. So, when for the month of September, 1949, we show 17 lost-time injuries, with total man-hours worked of 1,533,656, against the balance of the state with 4,156,941 man-hours and 21 lost-time injuries, we become greatly concerned.

What we would like to have from someone is the answer to this question: What can we do to remedy our situation? We are not interested in a competitive program to get a cup or award. What we are interested in first, is to prevent injuries to our employees. Second, we would like to be able to compare our records with others based on standards as prescribed by the various states and the National Safety Council.

These comments are not pointed at any individual or company, but merely intended as an appeal for accurate reports. If one day or six thousand are lost, let it be known. Let us not attempt to fool anybody! We can't, anyhow.

Following are the basic principles of our companies' safety program. We will genuinely appreciate hearing from anyone who is willing to offer criticism.

Basic Principles

(1) Accidents are caused. Something goes amiss, or it is the fault of a person.

(2) Eighty-eight per cent of the accidents are caused by human factors, 12 per cent by mechanical factors. About two per cent are unavoidable by the use of ordinary precautions.

(3) The same cause that produces a relatively minor injury, such as a broken finger nail, may also result in such major injury as amputation of a finger, hand or arm, or even death.

(4) Prompt and efficient first aid is absolutely necessary to prevent infections with their train of lost time and permanent injury.

(5) Certain safety rules are necessary for control of personal causative factors.

(6) Decrease in accidents is invariably accompanied by increase in quantity and quality of production, and, therefore, by decreased cost of production in addition to decreased cost of accidents themselves.

(7) The best way to engender safety consciousness in employees is to show them by positive action that you intend to remedy dangerous conditions when they are reported.

(8) Persons failing to observe ordinary precautions or safety rules in their work should not be reprimanded in such fashion as to engender resentment, but should be sold upon the value of safe working habits to themselves, their families, and other workers. Persons who resist this process unduly simply have no place in the organization.

(9) Some persons are naturally accident-prone, or by reason of lack of judgment or physical factors or bad living habits. This must be eliminated.

(10) Accident prevention is definitely an every-minute

part of production, and as such is the natural responsibility of each supervisory person.

(11) The time to investigate any accident is as soon as possible after it occurs, before recollections have a chance to change.

(12) While efficient production is the aim of every industrial organization, safety in production must be its policy, if operations are to continue successfully over long periods of time.

(13) The pronouncement of policy in safety is a function of upper management, and in final responsibility for each and every injury rests upon the same.

(14) Supervisors are entitled to systematic and accurate records and analyses of the same from the staff organization as an aid to production and accident prevention, enabling them to spot bad conditions or bad work habits with minimum time and effort on their part.

(15) The most efficient way to conduct any operation is invariably the safest way. Therefore study of processes or operations by the staff is necessary, in conjunction with the supervisor, so as to further efficient and safe production.

(1) Provide a safe plant, equipment, and tools.

(2) Adequately safeguard all machinery.

(3) See that all new machinery and equipment is designed safely and safeguarded before installation and use.

(4) Plan and arrange all processes and operations for safety.

(5) Set up and maintain a system of inspection for discovery of hazards.

(6) Maintain safety-minded supervision.

(7) Provide proper safety training, education, and stimulating influences for its workers, so that they will take a sincere interest in safety both for themselves and their fellow workers.

(8) Investigate all accidents to determine how best to prevent recurrence.

(9) Make full and prompt reports to proper authority of all reportable injuries.

(10) Ensure full and fair settlement of all compensation due for injuries, and strive to eliminate all faked injuries and padded or exaggerated disabilities.

Mr. Potts' honest and rather startling questions were asked in a recent issue of Textile Safety, publication of the National Safety Council's textile section.

The Plant Nurse And Her Duties

By MRS. LUCILE HERMAN, R. N., Carolinian Mills, Inc., High Shoals, N. C.

MY work is divided roughly into three parts: (1) the plant, (2) the village, (3) personnel office. In the plant, I have the first aid room where employees are encouraged to report any accident for first aid treatment or to be referred to a doctor if necessary. During my hours off duty, a cabinet is available in each department where the necessary first aid equipment is kept to be administered by some one in charge of that particular department, with a record kept to be included in our monthly accident report. We have a general safety program in the plant with a committee consisting of our overseers, second hands and one representative of each department for each shift. We meet once each month to discuss the accidents, their severity, and how this type of accident may be prevented. These committees inspect their particular department and bring suggestions to the meeting as to how we may remove any hazard and make the department a safer place to work.

These committees are rotated each six months, hoping eventually that each employee will have served on the committee. The general accident report for the month is reviewed at these meetings as to departments, the type of accident, and whether or not they received medical attention. Cost, severity and frequency ratings of other plants are presented at these meetings, thereby creating interest in the safety program. The figures we are most concerned with, however, are those of our own plant, especially the frequency rate, the decrease which is shown in the following: 1947—39.48 accidents per million man hours, 1948—12.66 accidents per million man hours, 1949—.98 accidents per million man hours.

This decrease has been made possible by the splendid co-operation of our management, overseers, second hands and employees, who constantly are on the alert to promote the safety program. Without this close co-operation, I alone in the first aid room could do very little toward preventing accidents.

In the village work, I am available for consultation about sickness in the family of any employee. This is more or less limited to our village because of the fact that many of our employees live a distance from the plant. Problems with the school children are usually taken care of by the Gaston County Health Department, but my assistance is available when needed.

Clinics are held at intervals to afford the children the advantage of immunization against diphtheria, whooping cough and smallpox. With the help of the nurses from the Gaston County Health Department, a very successful typhoid clinic was held in the Summer of 1949 with approximately 125 people taking advantage of it. During the Summer months DDT is distributed, with notices placed in the plant and village urging the use of it. We feel very fortunate that we have not had one case of polio so far. We participate in local drives, such as Red Cross, polio, T. B. seals, etc.

New Employees

I work with and under the supervision of the personnel director. Up to this time, we have not required a pre-physical examination of a new employee. Personally, I feel that this is most advantageous to both employee and to the management and I hope in the near future to see this program into effect. We find what church new employees would like to attend and the names of these newcomers are given to the pastor of the particular church. Any sickness in the families is also reported to the pastor when possible. The need very seldom occurs to give financial assistance to

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SALES OFFICES: CHARLOTTE • GREENVILLE • ATLANTA the families of any of our employees, but when we do find it necessary, we take care of "our own" as far as possible. In the process of hiring a new employee, a personal record is made and we find this an opportune time to find the number of children, their ages and whether or not they have been given the proper immunizations. I make it a point to visit in the home of each new family, hoping that this personal contact will make them feel free to call on when needed.

I feel that the standard of living in our village is high in comparison to many villages. This is due of course to our high wage standard, the steady operation of our plant, and the screening of new employees.

As an industrial nurse, I have every advantage needed for broadening my spofe of life. I go into the humblest of homes where very little is needed to make the household happy, as well as into homes where the requirements for happiness could not be met by the wealthiest of families. My heart is made to ache on many occasions, but this is soon forgotten by my many happy associations. My life is, as in any other profession, just what I make it. To me it is a good life—a full life—a happy life.

EDITOR'S NOTE: It seems that "Son" has been called on the carpet about accident prevention. "Son" also seems to take the attitude that it is not up to him to prevent accidents. "Dad" (who is a well-known mill superintendent in real life) hopes to have straightened out the youngster with this "letter." After all, the boy has a lot to learn.

Dear Son—

Of course safety is part of your job. I am surprised at the tone of your last letter. You seem to imply that you as a supervisor should not be concerned with this important part of your duties and that it should be entirely up to the safety director of your organization. I say I am surprised; but I guess I should not be. Perhaps I was expecting too much from you for the experience you have had. I sometimes forget that you youngsters are all wrapped up in technical knowledge and formulas. I think I have told you this before. If I haven't, it is time you realized it and if I have, you certainly need to be reminded again. Albert Einstein, in an address to the students at California Institute of Technology, said the following: "It is not enough that you should understand applied science. Concern for man himself and his fate must always form the chief interest of your endeavors. Never forget this in the midst of your diagrams and equations." You too, Son, must not lose sight of the human factor in industry. You must not put cloth design, twists, drafts, spindle speeds, beats per inch, card settings and waste percentages above the safety of the men and women that operate the machines.

Son, you are also wrong when you try to defend yourself on the grounds that "the employment manager should hire people that know enough to work safely." Also you are wrong when you say what you need is "stricter safety rules." Perhaps you yourself might think a little about where you are failing. You admit that your department has the worst safety record in your plant. Accidents happen wherever people and machines work together. As Kipling said about the machines:

> "But remember please, the law by which we live,
> We were not built to comprehend a lie,
> We can neither love, nor pity, nor forgive;
> If you slip in handling us, you die."

Owners of machines accept the responsibility of the safety of the people that are hired to operate machines and perform the services needed to keep plants running. When you were made a supervisor they, through management, delegated that responsibility to you, just the same as they delegated to you, maintenance, cost, production and quality of your department.

Let's stop a minute and see why you should prevent accidents in your department. First of all, safety work is to prevent injury and/or death to human beings. And in the second place, accidents cost money. Accidents cost money just as surely as waste of good stock and supplies. The company loses production, has its stock and machinery damaged and also pays the compensation cost. Beyond all this, you as a supervisor, lose prestige and workers goodwill beyond measure, in dollars and cents, if you are indifferent to the safety of the workers whom you supervise. On the other hand, if you are genuinely interested in the safety of the workers of your department, they will sense this personal interest and co-operate in making the department or shift a smooth working unit of your organization. When you have such co-operation in turn you will enjoy better production and quality records.

Yes, it is up to you as a supervisor to train the workers to work safely; for, generally speaking, the man that works safely generally works well. But before we talk about training, perhaps we should stop a minute and see what the principal causes of injuries are. Generally speaking, injuries are caused by accidents of two general classes:

First—The type accident that occurs due to some unsafe physical condition of the plant or machine.

Second—The type accident that occurs due to some unsafe act on the part of the injured worker or on the part of a fellow worker.

From what I have seen of your plant and from what I know of the management of your company, I am sure there are not many unsafe conditions or machines in your plant or department. In fact, most of our Southern textile plants are safe and well kept from a safety standpoint. As a rule, most Southern plants have well guarded machines, are well lighted and in good physical repair. This fact is borne out by a recent survey that showed that approximately 85 per cent of accidents in textile plants resulted not from physical cause of building or machines but from the failure of the workers themselves.

Now what are some of these human failures? They are: (a) Failure to use safety devices and equipment. (b) Working in unsafe position or wrong technique (for example, lifting with back instead of legs). (c) Adjusting, cleaning, and oiling with machines in motion. (d) Using improper or worn equipment (for example, using a wrench for a hammer). (e) Indirect causes—home trouble, lack of sleep, subnormal physical condition, day-dreaming. (f) Plain old "horse-play" and the practical joker.

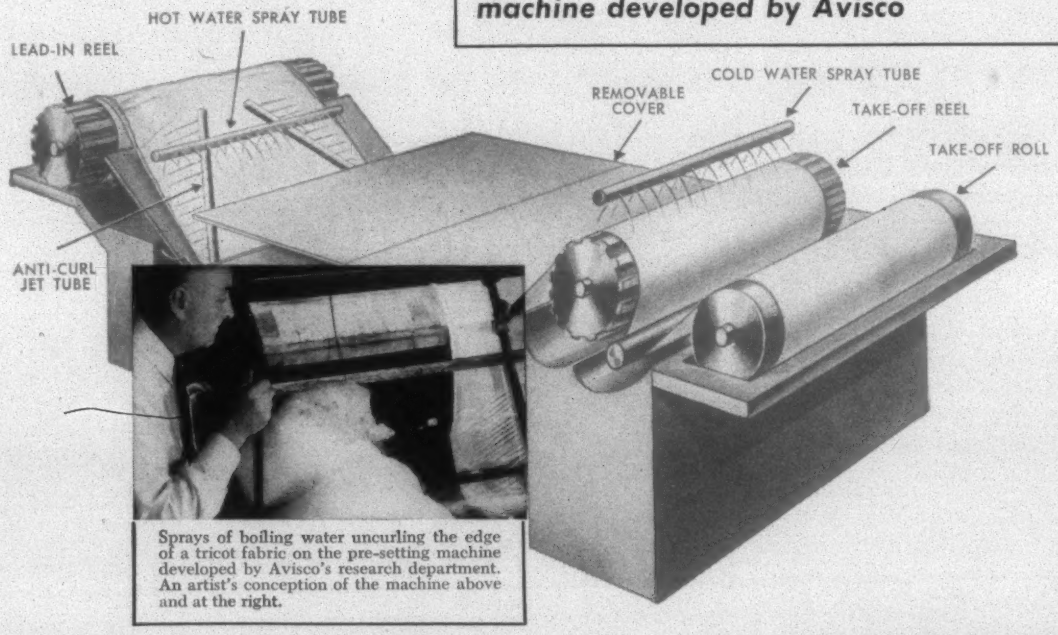
Now do you begin to see where you as a supervisor begin

Rayon Reports

Prepared Monthly by American Viscose Corporation, New York, N.Y. March, 1950

Tricot pre-setting machine proving successful with variety of fibers

Holly-Knit Inc. reports excellent results with machine developed by Avisco



Sprays of boiling water uncurling the edge of a tricot fabric on the pre-setting machine developed by Avisco's research department. An artist's conception of the machine above and at the right.

The tricot pre-setting machine announced by American Viscose last spring is now being successfully used to process all current types of tricot fabrics it is reported. One machine, built and operated by Holly-Knit Inc., Mt. Holly, N. C., has proven to give superior results not only with acetate but also with stabilized stitch acetate, nylon and blends of nylon with acetate, viscose and cuprammonium. The operation has been so successful that at times, the machine is running on a 24-hour a day schedule.

Holly-Knit has found that one of the major advantages of the process is the extremely favorable cost of operation. It not only keeps the fabric flat until the setting process is complete, but the fabric can be dyed in the flat without tacking and subsequent un-tacking. Thus the goods are pre-set in the greige and not after scouring. "Crow's feet" and crease marks are eliminated and the goods come out of the dryer with a straight course line. It is also felt that the Avisco pre-setting machine is much more versatile than conventional types. Due to its favorable cost it is entirely feasible to use it in conjunction with dry-heat setting in plants doing a variety of work.

Finishing plants interested in using this new process may obtain complete information from American Viscose Corporation.

Full information about the Avisco tricot pre-setting machine will be available to the trade at the Knitting and Allied Crafts Exposition, April 24-28, 71st Regiment Armory, New York City. The booth numbers are 54 and 55. In addition, those interested are always welcome to visit the Textile Research Department at Marcus Hook, Pa., where license agreements are available on request and for demonstrations and answers to their questions.

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to come into the picture: In the field of accident prevention, as in the field of maintenance of production and quality, management delegates to you the responsibility to work with and carry out in your department the program outlined by your safety director. You are the key man, because you are in a very strategic position by virtue of the fact that you are the only man constantly in touch with the man on the job. You must have an intimate knowledge of the machines the workers operate. You must know the tasks they perform and above all know the individual characteristics of each individual on your shift. You alone are in the position to become acquainted with the individual habits and attitudes. You are the one that actually gives the orders and instructions. Yours is the task of foreseeing and calling to top management's attention the physical hazards that might arise as machines are changed, equipment added, and plants altered as time goes on. Yours is the responsibility and yours is the authority to instruct, interpret and enforce safety rules.

I do not mean to give you the impression that you alone can prevent accidents. To the contrary, you will never have a successful safety program until you get active employee participation. To gain this active participation is not easy. Employees are often inclined to feel that safety rules are "the same old stuff." Oftentimes they feel and think that there is too much talk about safety. They get a little tired and sometimes a little irritated, I think, of being advised, informed, instructed, coaxed, ordered, and reminded about safety. Remember how provoked you used to get with me when you "had the car" and your mother or I reminded you to drive carefully and not too fast—same thing.

In fact, supervisors are apt to brush off talk about safety on the grounds that it is "the same old stuff" or they tend to take lightly this all-important phase of their work, accident prevention, as something fancy the main office or personnel department thought up. History is the same old stuff. So is life, birth, childhood, marriage, death and three square meals in between. Yet we don't burn the history books or just lay down and die. Rather, we keep on; a few high and a few low spots, but mostly a pretty level road. Yet we view life seriously and we make the effort, because we know the worth, to hang on. Important too, is accident prevention—always. To an injured person, safety is anything but "the same old stuff." Still the problem—"employee participation." Some companies resort to safety contests, drives, or campaigns. They all have their place, but getting "employee participation" is a continuous effort. First the worker must know the dangers of the job at hand. He must be shown the safe way. Then he must be checked to see that he is performing the tasks or using the equipment as instructed. As you give your safety instructions, tell "why." You like to know the "whys" of your job and your overseer explains. I know, for I have watched his work when he worked in our organization. Explain your safety rules. Just printed copies handed out is not enough. They in themselves are simply the guide posts to your accident prevention work. Simply ordering people to obey safety rules or any other rules instead of explaining why will not get far. Employees appreciate your explanations because it indicates you respect he or she as an intelligent individual. C. B. Coxe in the annals of the American Academy of Political and Social Science said, "The safety message cannot be crammed down men's throats; nothing can be accomplished by strict rules and threats and punishments. Men must be made to want to work safely, and only through constant diplomatic and intelligent teaching can this desire be created."

Screening Tests Disclose Undetected Seeing Faults

More than two-fifths of the nation's industrial workers need professional eye care for visual handicaps of which they are unaware, the Better Vision Institute reports. These revelations are based on scores accumulated at Purdue University's Occupational Research Center on more than 100,000 persons tested with a precision instrument for 12 visual skills. Similar analyses of high school students show that about the same proportion of them have uncorrected visual faults.

In a test of visual acuity skills, the most easily brought up to standard by eye care, 35 per cent of the industrial employees and 31 per cent of the students were below standard. The tests, the institute emphasizes, do not determine what correction is needed but only whose visual skills are sufficiently below standards to justify professional eyesight examinations. Such examinations, it is pointed out, are the only means of determining what should be done to preserve and improve the eyesight, on which man depends for 83 per cent of all his learning.

You too must set the example. You as a supervisor must put into practice what you preach. You cannot expert workers to have better attitudes toward safety than you have yourself. What you do and how you do will have a direct influence upon the safety outlook of the workers whom you supervise. If you use the air hose to "blow-off" your clothes, then you can expect the people in your department to do likewise.

The safety director was justified when he called you in and pointed out to you the number of accidents you were having. He has a right to expect your co-operation for experience has proven that accident prevention increases production, decreases overhead charges, cuts down the rate of labor turnover and reduces the cost of compensation. I know no place where the return is higher than the return on the dollar spent to prevent accident and injuries. Disability means lost time, which in turn means loss of skill and "know-how." Any such loss slows up the plant and adversely affects quality. Whatever slows up the plant increases cost.

Management thus finds the economic basis for accident prevention a challenging stimulus, but present-day management remembers to keep the two basic reasons for accident prevention in their correct order of importance—first, the human basis; and second, the economic basis.

So much for accident prevention, Son; are you taking part in the community and civic activities of your town? Remember the town in which you work is your home and you owe something to the community in which you live. Remember, Son, there is more to making cloth than just machines and fibers.

Lovingly

Dad

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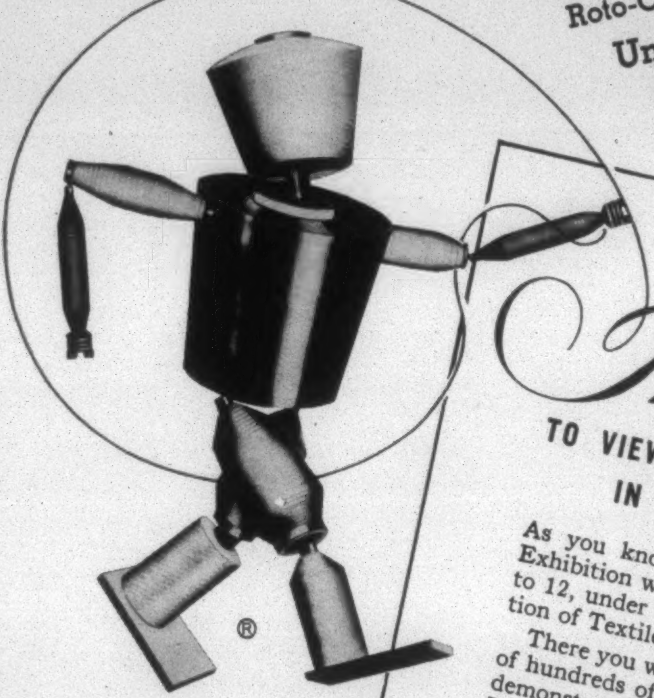

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Quality Control Of CARDING & SPINNING Through Methods And Systems Of Inspection

EDWARD C. HORNER, retiring chairman of the Eastern Carolina Division of the Southern Textile Association (and assistant superintendent of Sterling Cotton Mills, Inc., Franklinton, N. C.) led the discussion group which took up methods and systems of quality control in carding, spinning, winding and warping during the group's Spring meeting. An abstracted stenographical report of the discussion is presented herewith.

Chairman Horner: Our first topic is stock inspection of the open bale. We are confronted with a good many problems right there, as we inspect that open bale. First of all, I think we classify that cotton and decide to some extent what qualities are there from the standpoint of the staple and the spinning value. Then we judge that cotton as to what processes and what settings to use and what is going to have to be done to it before it ultimately ends up as yarn. We have to consider the amount of neps in that raw stock of cotton, although a good many people tell us there are no neps in raw cotton.

Mr. A: One of the things for which we look first is color—if there is any off color, some color that would not dye just right but would leave streaks, maybe, in the finished goods. There are some colors that, as most of you know, looks as if they would be all right. But there is a kind of dead blue that will make streaks when woven. I have been called in to see some of that that was not satisfactory in the finishing. The next thing we should like to learn something about is the trash and, we might say, the staple. Some cotton we come in contact with appears to have a pretty good staple. I am thinking particularly of the cotton we are getting this year. But there is a whole lot of short in there, a whole lot of fine stuff that weakens our spinning. That we should like to have out of it. The next thing is trash. I reckon all of you have seen trash. Sometimes it is called some pretty bad names. Anyway, we have those things to contend with. And don't forget about the mixing of this Western cotton. I suspect there are others who have trouble about strength in the yarn, and I am wondering if there might be some method that we might use to make some improvements.

Mr. B.: We are possibly in the same position in which Mr. A is, in that we do not have too much to say about the cotton that we are going to run. All of our cotton is bought by our cotton buyer, on title. I think some mills, however, have gone pretty deeply into testing and experimenting with cotton before they buy it. That is something in which I am interested; I should like to learn whether any of the mills have laboratories for testing cotton for evenness and strength before they buy it. They should determine beforehand their requirements. That is a thing in which I am interested, because we do not have too much to say about the cotton we get. We get it and have to use it. All we can do, if the cotton is too bad, is to go through and pull out some of the bad cotton, to bring the mix up to what we call standard mix. But there are a good many laboratories over the country, and I think if we would take advantage of them it would help us in our carding and spinning and in our strength. There is one laboratory firm in Memphis that is doing great work. If you want to buy any cotton out of Memphis they will test every bale of it for you beforehand and let you know if it is going to give you results in your mill. I think in the future cotton will be bought more and more by that method. I should like to know if any of the mills represented here have laboratories for testing cotton before they buy it.

Mr. C: In our mills we have a cotton buying department in the main office. We test for evenness and test the maturity of our cotton. We do not test every bale, and we do not have the final say-so as to the cotton we buy. They consult us, but sometimes they do not agree with us and go ahead and buy cotton anyway. We test cotton that comes out of new territory, and from every bale that goes into the opening room we take a sample and test it in the laboratory and control our mix in that way. The most useful thing I can tell you gentlemen about testing yarn and testing cotton is to read your government publications. They evaluate the different tests and tell you what to expect from different kinds of cotton. We have found that by checking and watching daily reports we can change our blends in the opening room. Some of the cottons that we wanted, that show strength, we just could not get; other mills have gone in ahead of us and bought them. But we do try to check our cotton. Some of the most surprising results have been in the waste.

The Chairman: That is very interesting. I judge from your remarks that some of your so-called rejected bales go back and are put into some other blend. That is, the cotton in those bales might not be suitable for some particular type of blend, but you put it into something else. But what about the smaller mills when we have a bale of cotton that we feel we cannot use? We pull it out, and what do we do with it? Do we send it back to the person that bought it, or do we send it back to the warehouse and every now and then sneak it back and dribble it in in little bits? You are treading on rather thin ice there, because there are not many of us in the manufacturing end who want to back up on the person that buys the cotton and tell him that the cotton has no spinning value and we cannot use it.

Mr. D: Don't you think that the small mills could take advantage of a commercial laboratory? It is a very small fee—very small for the amount of information you get. They will give you the fineness, waste content of the cotton, strength of staple, staple length—just give you a complete analysis of your cotton.

Elliot B. Grover, head, yarn manufacturing department, School of Textiles, N. C. State College, Raleigh: I was going to say, on this cotton testing, that we have done some work in the past and hope to do more. It has not been done routinely because our laboratories were too overworked. But we have downstairs in this building new physical testing laboratories and have a pretty good-sized plant for doing research. It is not yet completed, but we hope it will be pretty soon. It will be all air conditioned. We shall be glad to co-operate with the mills in this area in doing testing work on cotton fibers. I think, however, that since the United States Department of Agriculture has much more money than we have you might get routine information from that department, either from Washington or from the laboratory at Clemson. They charge a small fee. We have here the Pressley tester, the Fibergraph machine, and other methods of testing.

For the benefit of the gentlemen here I might mention some of the tests that are of real value. The Pressley test is a measure of the inherent strength of the fiber. If you have a strong fiber you are going to have strong yarn. Furthermore, there is somewhat of a trend for weak fiber to get more neps, and you will find that if you have a strong fiber you will have less neps. That fiber-strength test is very valuable.

You can spot your spinning on most cottons with the Pressley fiber index pounds per square inch. Maturity is valuable, too, because as you get more immature fibers you get more neps. The determination of the amount of waste is valuable, because you know that with certain cottons you know you are going to take out more waste, whether you want to or not. The Fibergraph test is being used more and more all the time. That analyzes the qualities of the fiber.

One of our students last year made a study of the mills having laboratories. His survey showed that they made tests of fiber evenness, fiber strength, fiber maturity, and similar tests of that type, not on all bales but on many bales. I think if you fellows in the mills can gradually get a knowledge of what the results mean it will be of great value to you. Get yourselves on the government mailing lists. The government has the figures for this year's crop, and they will show you all the way through what the equivalent strength rating is. If a cotton is rated at 95 per cent in strength you know if your buyer purchases that cotton you will get only 95 per cent of normal strength, while if he gets cotton rated at 105 per cent for strength you know you are going to get superior cotton. They give you all the information and, furthermore, tell you what the figures mean. That service is part of what you are paying taxes for, and you might as well use it. Build up your knowledge of what you are buying and what this Pressley index means, and so forth. If you are buying cotton that has a strength index of 7,500 pounds per square inch you know you are getting pretty good cotton; if you are fortunate enough to get cotton with an index of 9,000 pounds per square inch you know you are getting very good cotton. So take advantage of those things.

The Chairman: From what has been said about testing cotton in the open bale it seems we should have our cotton classers here. But that is beside the question. We are manufacturers, as someone said this morning, and it is our responsibility to do the best we can with what we get. That reminds me of something said by one of our members who has passed on, Mr. J. W. Cates of Edenton. He said: "If you give me good cotton I will give you good yarn." That statement emphasizes the importance of getting good cotton. But we are going to process our cotton, no matter what it is, and get the best results we can. So again we come back to our ability to process that staple and make the very best yarn we can from it. We have problems from time to time. Are we getting as good cotton today as we did yesterday? Is it the same color? Just what are we going to do about it? Those are problems that confront everyone who is responsible for the manufacturing end of it.

Let's go on a little bit and get into some other form of inspection. Do we end our inspection at the open bale or do we go on and inspect other processes? Perhaps some of our equipment in the opening room is not cleaning the stock as it should; perhaps some of it is curling it; perhaps some of the machinery is inadequate. That is important to our final results—whether we are damaging our stock as we attempt to clean it or whether we are doing the job we hope to do on it. Do any of us examine that stock after it is cleaned, before it goes into the picker room?

Mr. E: Most of our inspection and testing is done on the open bale, before the cotton is started through the mill, if it is done at all. We have no system of inspection after it is opened up and blended. While I am up I should like to mention this. I have heard these gentlemen talk at length about different kinds of instruments used for testing cotton as to strength and neps. I wonder if those instruments at the same time show up or tell you anything about immature fibers. Of course, if immature fibers are in there they will affect the strength.

There is one test I have heard about, and I wonder if anyone here knows anything about it. That is testing cotton in the bale by certain dyestuffs. The immature fibers, of course, will not dye like the good fibers. I wonder if any progress has been made along the line of testing cotton by dyes or chemicals.

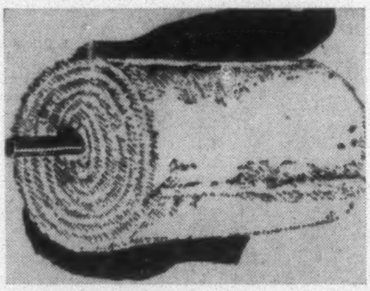
Mr. Grover: The litmus method is no good. Then there was another method which has been replaced largely by the dye method. But in order to determine anything quantitative—that is, to determine the amount of immature fiber—you have to do more than use a piece of litmus paper. Mr. Bogdan can tell you about that.

J. F. Bogdan, Professor of Research, School of Textiles, N. C. State College, Raleigh: There is a method of testing by using sodium hydroxide, to determine the percentage of immature fibers. A certain number of fibers are treated with 18 per cent sodium hydroxide, which causes the fibers to swell. They are inspected under a microscope, and the fibers whose lumen is more than twice the width of the wall are classed as immature. That does take a little time. It is rather hard to get a quantitative measure and say the fibers are 80 per cent mature or 85 per cent mature.

The differential dye method is another way in which the immaturity of fibers can be shown, by using dyes which stain red and green. If you have more green the cotton is more immature; if you have more red it is more mature. The immature fibers show as green and the mature as red.

Mr. F: We do not have a very elaborate system of inspection. We have scales to weigh each lap and have the Aldrich weight indicator to help us keep our laps on the standard. I think that covers about most of the things we look for in most of our inspection. We try to keep our pickers in reasonably good condition to make a lap that will not have thin places or thick places. We do not have a lap tester.

Mr. G: We have a lap tester. We do not have any specific time or period for checking laps. We do, I would say on an average of once a month, go over our pickers and if we find a lap off-standard from yard to yard we go back and check the pickers and see what we can do to get them back in good condition. One of the greatest troubles we have had is with the tension. Mainly that is about the only thing we generally find that contributes more to unevenness, everything else being normal.



Mr. Grover: Does anyone now have the scale that indicates when the weight of the lap is off? It has a red light that goes on when the lap is off in weight. It is a new scale. It seems to be a foolproof method of checking on laps.

The Chairman: That, I think, would be ideal, but I believe it would be expensive. I think that would be a very good place to invest some money—to get a good picker-lap scale. Incidentally, what do we do with our laps that are off in weight? Do we carry them back to the picker room, or what?

Mr. G: We have a very good place to dispose of our laps that are off the standard. We do a good deal of blending, and we run them through the blending machine. So we do not have to return them on the picker.

Mr. Grover: One mill I checked in South Carolina ran these laps on special cards. They had certain cards segregated for heavy laps. They wanted to avoid reprocessing, because every time you run cotton through the picker you are going to get more neps.

The Chairman: If anyone has only one finisher picker he might require the picker tender to segregate his laps as they come off and require him to put too heavy laps and too light laps in the finisher picker.

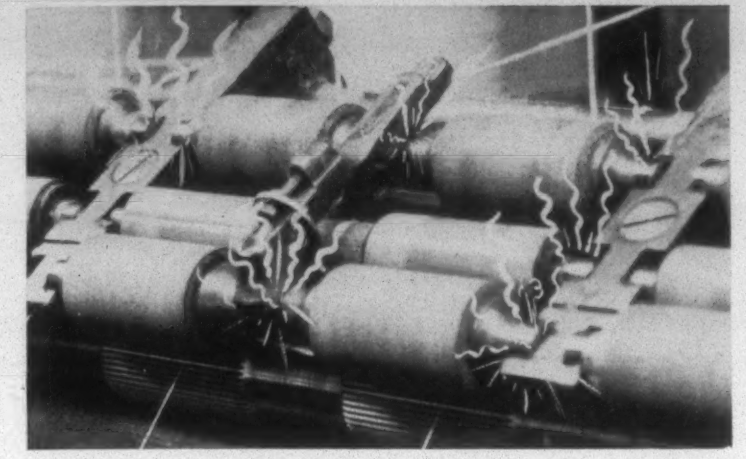
Mr. E: What limits do you set as to heavy laps or light laps?

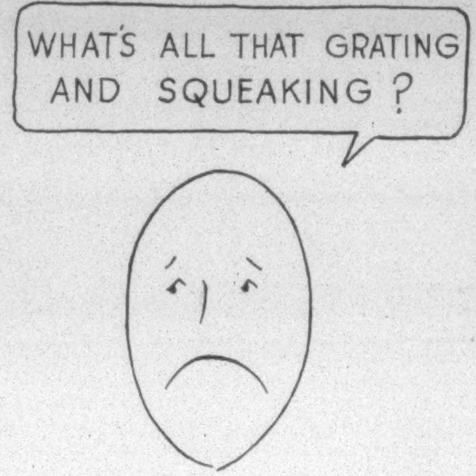
The Chairman: Some men would rather take a considerably heavier lap or a considerably lighter lap and let it go on to the card than do the damage to it that comes from reprocessing.

Mr. E: How heavy or how light?

The Chairman: Well, one-half-pound tolerance, I think, is generally accepted. Let's move on. What does your inspection of card and drawing sliver cover? Mr. C?

Mr. C: On all our tests we try to set up a system. It takes more bookkeeping, but it is a good thing to keep a record and then break the tests down. We did that for a month, and when we broke down the records we could find if a machine would run light or run heavy all the time. We send samples to the laboratory and check for nep count and evenness and also for weight. Then we can test that by the machine, to see how each card stacks up. We do try to

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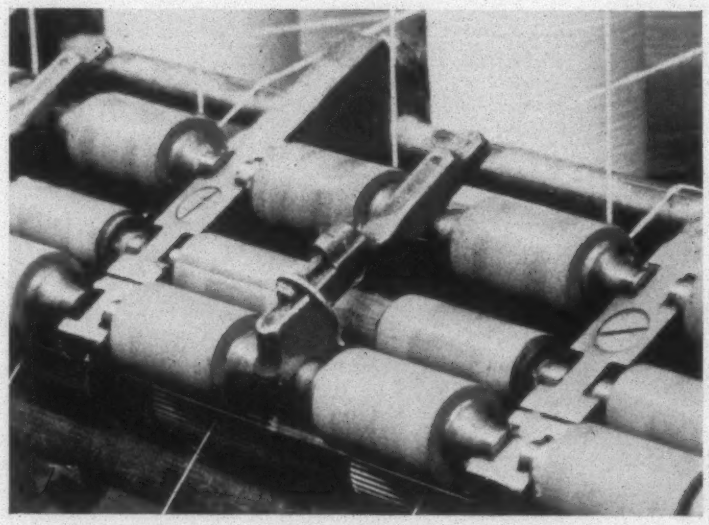

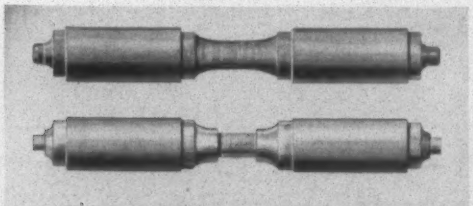

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check the weight at least on the drawing sliver, because in a mill of about 200 spinning frames you can change 28 gears on the drawing frames and control the weight there more easily than at any other point in the mill.

The Chairman: Do you record the percentage of the weight that you take out in the way of fly and on the top flats?

Mr. C: I think the only real test on that would be to put a lap in the back and weigh it before it goes in and weigh everything that you take off the card.

The Chairman: Of course, what you take out in the way of trash has a definite effect on the quality of your card sliver. In the inspection of drawing sliver, how often is drawing sliver sized? Do you have a definite cycle of sizing drawing sliver?

Mr. C: In one mill we check the sliver from every delivery once a week.

The Chairman: You have a cycle of once a week. How about the handling of the stock? The handling of the card sliver has a great deal to do with quality. How many of us observe the operators in handling the sliver after it is in the can and in the transportation of that can behind the speeders or slubbers, whichever the case may be, and observe whether it is damaged in any way, possibly by the head's being careened over to one side and the operator's pushing the sliver down and possibly mashing it or bruising it? Who observes the operator as he splices it—the type of splice he is making and whether he is creating a thick place or a thin place?

Mr. H: We check some of the piecing with the Saco-Lowell sliver tester, but we do not do that regularly. We do most of the checking by casual observation. You would be surprised at what a piecing looks like when you put it in the sliver-testing machine. A piecing that looks good often is thin. It almost has to look heavy to be right. We have watched our drawing, for instance, trying to show the effect of one or two inches of bad drawing sliver and just what it would amount to down on the end, say in the yarn. If you have a bad piecing, let's assume it is no more than two inches long, on your drawing, you can imagine just how many yards of yarn you will have light or heavy, whichever the case might be. At the same time, although many of us have been told or have thought that if there is a bad piecing the end may come down and it will not worry us too much later, you would be surprised how many ends will stay up and go right on into the yarn. As to that individual piecing, let's assume you have a heavy spot or a heavy piecing, rather than light; you can just bet your bottom dollar that you will have a total number of yards in spinning that would surprise you. You can, as the gentleman was just saying, make a splice that looks perfect. You have lots of space in there, and that space must be just air space. There are not as many fibers in that splicing as there would be had no splicing been made. It is better to make a splicing that looks a little bit heavy as far as weight goes; that is about the only way to get a consistent size of yarn at the splicing. If you do not make one that looks just a little heavy the fibers are not there.

The Chairman: Do you creel on the doff or just creel at random when the stock runs out?

Mr. H: We creel on the doff.

The Chairman: So as a general rule that splice is on the bottom?

Mr. H: Theoretically it is pulled off by the spinner.

The Chairman: Do you have any instruction to the operators to pull that off abruptly or raggedly, or what?

Mr. H: Well, we instruct them to pull it off in this manner—break it abruptly, so to speak, and not have a long tail on the end. You will have a little, the theory being that you have the same amount on each end and then make the splice. We do not set any number of inches to splice in or from. It has been our practice or our finding that if the end were broken just as you might pull a sample of your cotton you will wind up with a better splice. We do not claim to know the answer, by any means.

The Chairman: The rule of thumb is to lap it the length of your staple, isn't it? Mr. I, will you tell us the kind of inspection you have on speeder roving or slubber roving?

Mr. I: Well, we have an operator's mark that we put on not long ago. What we do not catch in the card room is sent back to the fly frame.

The Chairman: Who picks out your tangled bobbins?

Mr. I: The spinner sends them back to the card room if we do not catch them before they get over there.

The Chairman: The build that you have on your frame or the taper that you have has a great deal to do with the sloughing off of roving, hasn't it?

Mr. I: Well, it would if it is not right as to the tension on the frames.

The Chairman: Do you have a systematic check-up of tension on your frames, or do you leave it to your frame tender that when he thinks the tension is too tight or too slack he will notify the fixer to change the tension gear, or what is your method?

Mr. I: We do not leave it to the frame tender at all. There are times when we have to notify the fixer to tighten up on the frames or slacken tension, but we do not do it on one frame. If we do that we do it on all the frames of that kind. We require them to stack roving in boxes.

The Chairman: I wonder if we think as often as we should about our roving boxes from the standpoint of cleanliness—whether we clean them out periodically and whether that is the assigned duty of some person or whether we just let lint accumulate. Most of the lint that accumulates in roving boxes is little, hard lumps that come off the spindle and from the end of the spindle. Has anyone a solution to that problem?

Mr. J: We clean the spindles on each doff, but that does not keep it all off.

The Chairman: Going back to quality, staying on the count and on the number is definitely connected with quality. What is your sizing cycle on roving?

Mr. J: Daily (every 24 hours).

Mr. E: There is one question I should like to ask, perhaps of the gentleman who was talking about splicing on drawing, and so forth. What is the best way to creel drawing—one can at a time or

50 Years Of Textile Education

FEATURED speaker during the annual Spring meeting of the Eastern Carolina Division, Southern Textile Association, at Raleigh, N. C., March 4 was Dean Malcolm E. Campbell of the North Carolina State College School of Textiles, who, along with other members of the school staff, acted as host to the gathering.

Approximately 120 mill operating executives and others associated with the textile industry sat in the school's new auditorium to hear Dean Campbell trace the institution's history from its beginning in 1900 to the present. He stated that the first graduating class in 1901 consisted of one student, while that in 1949 was made up of 303. The school's physical assets, which began with a single loom, have grown to a $2,000,000 plant containing a complete and varied range of textile processing equipment and a large, specialized library. "One of the biggest things that ever happened to the School of Textiles," he said, "was the forming of the North Carolina Textile Foundation in 1942. Financial help from this organization enables the school to employ the most capable personnel to be found anywhere."

J. R. Meikle, general superintendent of Rosemary Mfg. Co. at Roanoke Rapids, N. C., was elected chairman of the division to succeed E. C. Horner, assistant superintendent of Sterling Cotton Mills, Inc., Franklinton. J. E. Shaw, who is Mr. Meikle's assistant at Rosemary, was named vice-chairman, and C. W. Howell, superintendent of the No. 2 Plant of Erwin Cotton Mills Co. at Erwin, was chosen secretary. A new member of the division's board is A. M. Moore, Jr., of Durham, superintendent of Erwin Plant No. 6. Retained on the board were J. P. Hughes, superintendent of Eno Cotton Mills at Hillsboro; S. G. Riley, superintendent of Pilot Mills Co. at Raleigh; and W. A. J. Peacock, superintendent of Borden Mfg. Co. at Goldsboro.

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all six cans, so far as quality and evenness are concerned? Which is best, and which do most of them do?

The Chairman: There are advantages both ways. If you creel on a doff you can very easily splice all six ends and run it through and leave it in the bottom of the can; and the changes are, according to theory, that it will be dumped out. The other method of creeling would be to creel one at a time and not permit anyone to break out any. I think it would depend on circumstances whether you creel it all at one time or creel at random.

Mr. K: My guess would be that most of us creel individually rather than all cans at one time, but that is a guess. We creel individually. I believe about all the drawing I have seen creeled, or at least three-fourths of it, would be creeled individually. I will not say that is the best way. It is probably cheaper and more productive and so on, but I would not say it is the best way.

Mr. L: We creel drawing on the doff and take those pieced cans back and run them through again. We do not creel individually.

The Chairman: What about creeling on controlled-draft drawing?

Mr. L: That would have to be creeled on the doff.

The Chairman: Do you run that tail in on your drawing or lap it in there and let it go in as a splice?

Mr. L: What we try to do is to have an ideal condition. If you have the lap on your lap winders even, try to keep them as even as possible, to save waste. But if you have one to feed longer than another, don't let it run through. We lap up as evenly as possible on the tail on the drawing, and when we doff the can out we take off the uneven sliver that is in the top of the can. We cap that for waste.

Spinning

The Chairman: Mr. B, can you help us out a little bit on the inspection of the spun yarn?

Mr. B: As to a system of inspection, I should like to tell you what we have, which is common in all of our mills, I think. We have over a period of time established what we call a standard on all our weights for our card sliver, our drawing, our spinning, our slubbers—we have established a standard weight and number of ends down. We have done that for any process through the mill. That was done over a period of time and records were kept, and of course we tried to improve all the time. Periodically—say every two weeks—we recheck every process we have in the mill for standard weight, to see if the slubber bobbin is off weight or any of the cones doffed is off weight and also to see if the break is off. We have standard breaks for the slubber, the spinning, and so forth; and if the break is high we check everything and try to bring it down. If it is low at the end of two weeks we do not change it, but if at the end of another two weeks it is low we change to bring it to standard. It is a process of continuous checking and holding to standard. Of course, if we can we better our standards in the course of time.

The Chairman: I wish somebody would tell us what to do when breaking strength falls down. We are also confronted, from the standpoint of quality there, with handling that stock, and handling it goes back somewhat to the size of the package as it comes off the spinning frame. Some packages will stand a great deal of abuse; other packages will stand very little abuse. It depends a great deal on the type of yarn from the standpoint of twist and the softness of it. Then, too, we must consider the type of package and what we are going to do after it comes off the spinning frame. Are we going to wind it or spool it? What type of build will give the best results if we are going to wind it? Some of us have individual problems as to fuzziness and smudge, or something else. There is a certain amount of black dust in the under part of a spinning frame, and if you have a particular type of build and the bobbin revolves at a high rate of speed it will pick up smoke or smudge from the air. That may be a problem for some of us, and it may be necessary at times for us to change the type of build we have so as not to let it concentrate on too small an area.

Mr. M: The gentleman was speaking about checking. How long do you let it get, or how high, before you consider you have to do something about it?

Mr. B: We have a five per cent tolerance. If this week it checks five per cent high and continues that way, that is too much. If the check shows five per cent low, that is fine. If it continues at five per cent, then we have to change our standard. We do not change our standard just on one check; but, if it continues low, that is a trend, and we change the standard.

The Chairman: In other words, you penalize the man for improving on the standard.

Mr. K: We have been experimenting this year with our spinning wind in reverse, to eliminate the smoke problem. Is there any correlation between the ring size and the length of the taper on the bobbin—the so-called cone-bottom bobbin? In other words, should the bobbin have a 2½-inch taper for a 2¼-inch ring or have 1¾-inch length taper for a one-inch ring? In all of our checking and asking questions and trying to gain knowledge on this point we have run into a good many things. We did once hear that there is a correlation there, and I am just wondering. I know some of the bobbins we have do very well with heavier counts, but on finer counts it is another story. Can anyone tell us anything about that? Is there any correlation between the ring size and the length of taper on the cone-bottom bobbin?

Mr. N: I have been using that build for some time, but I never did determine what length it would take on the bobbin with a 2⅛-inch ring, which is the one I am using. The nearest I come to it is to determine the amount of the taper on the bobbin, which is 1¼. I think if you can have a 1¼ cone on the bottom of your bobbin that would come nearer to it than to try to work it out by the size of your ring.

Mr. O: Wouldn't the lay have something to do with it?

Mr. N: No, I do not think so, except that it would have something to do with the sloughing off. The idea is to have the cone as near the size of the ring as you possibly can so it will not catch under the shoulder and break it. Of course, you cannot have it as big as the ring because it will slow down the doffing; the boys cannot hold as many bobbins in their hands because the bottoms of them are so big. But the larger you can have them, the better; and then if you wind off with a high-speed winder you get better results than with low speed. The faster you wind off the better off you are. At times you have to determine how many balloons will form in coming off the bobbin. You can set it where you will have two balloons or set it where you will have one balloon. You cannot get the bobbin off the spindle very easily if you get it too near the guide; and therefore you may find that you have to set it where you have two balloons, in order to prevent having so many breaks near the shoulder of the bobbin.

Mr. Grover: There is a correlation, I believe, not between the ring size and the length of the taper but with the difference between the ring size and the bobbin size. I believe the agreed-on angle is somewhere around 21 degrees for the best all-around work, though I may be wrong.

Mr. K: Is that your maximum?

Mr. Grover: No, that is the average. If you get down below 21 degrees you are wasting money. Twenty-one degrees is a good place to start working. Obviously, if you get a larger and larger angle, naturally there is going to be a longer taper. I think I am right. I think you will find that all of your machine builders and many others who have done research agree with that figure. If my memory serves me right it is around 21 degrees.

Mr. K: What I had in mind is the so-called cone-bottom bobbin or bottle bobbin—whatever it is called. You will have a varying number of degrees or angle there, due to the different size of the bobbin from the base, we will say, to 2½ inches up the barrel. Now, the barrel will be your 21 or 22 or 23-degree figure, but you will have a varying degree of angle from there down to the base; and I am wondering if there is any correlation of length there that your angle will extend.

Mr. Grover: I would say that as the angle gets larger you could probably go to a little longer taper. You might get away with it and probably would, in reason. Probably you will find that out by actual experience. I just mentioned that 21-degree figure because Saco-Lowell in their research work had a figure like that and Whitin had about 21 or 23.

Winding, Twisting and Warping

The Chairman: Mr. P has come to this meeting prepared to give us something interesting on winding, twisting, and warping. Let's take just a minute to hear his report.

Mr. P: We have a new laboratory, and I will give you what we are doing on winding and warping, not in spooling or twisting. For our winding process we use the Universal Roto-Coner, winding Dyetex packages. For production purposes and also to assure even

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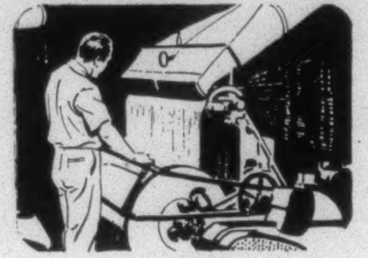
density of the package we have been checking the speeds quite regularly. The speeds are taken every two weeks. I also might add that the density of the package can be checked by the section man when he takes down the loaded cones, just by feel. He can very easily tell when a package is too dense just in taking it down. Each package is checked by the operator with a gauge. The size of the package has to be controlled, or there is considerable waste, so the overseer checks the package size periodically.

The tension, of course, has to be checked periodically. We check the tensions about once a week, to be sure that we have the proper tensions. On the Whitin-Schweiter winder, winding colored filling, the speeds are checked every two weeks for production purposes; the bobbin diameter and build are checked by the fixer once a week. The tensions are important there, too; we have to keep them down to what we call medium; and the tensions are checked every week to maintain the proper density.

All quilled colored filling is shaded or color-matched to prevent color variations in the cloth. Colors are alternated on the spindles, to prevent unnoticed pick-ups on another spindle, because the quiller does have a tendency to pick up an end right beside it. If you keep the colors separate you can spot that in a very few minutes.

Our warps are run on Abbott winders. The speeds are checked for production and to prevent bad work. We try to check on the re-ties, not only the number of re-ties but the cause. We have a very close setting on the slub-catcher and catch a lot of slubs and waste. The slub-catchers are checked about once a day for setting and are cleaned out twice per shift; they have to be cleaned out or you will have a tremendous amount of end breakage. The tension disc is checked once per shift, and the wires for preventing kinks are adjusted on every shift. The cones are inspected periodically for defects.



On the warping we are using the Cocker warper, Reeves drive. The operator adjusts the speed to maintain a nearly constant number of yards per minute. The number of ends down is checked periodically and the causes are determined. The angle of the cone to the eyelet is checked, and the tension discs are checked for proper weight.

Mr. K: I think Universal puts out a sizing attachment that automatically lets you know when your tube has reached a certain diameter. Have you seen any of those or tried them?

Mr. P: I have not seen any of them. We use a gauge that we ourselves make. Every winder hand knows what size it should be, and he uses the gauge.

THE MILL OF TODAY

By ROBERT Z. WALKER

Part 18 – Careful Stripping, the Base of Good Carding

IN recent years there has been a very pronounced awareness of the presence of neps in fabric, and the amount of neps has become another factor in determining the quality of many types of fabrics. This is particularly true with fabrics such as denim, where each nep is highlighted against a dyed dark background. As a result of this intensified interest and increased objection to neps, a number of technicians and research groups have investigated the formation and composition of neps. A summarization of this independent and separate research has shown that, in general, all agree that neps are composed of weak, immature fibers which have become rolled and tangled together. The neps are generally formed at the gin, in the opening and picking processes, or at the card. An important aspect of the results of this experimental and research work is the fact that the card is a machine which can have a definite influence upon the neppiness of the finished cloth, either advantageously or otherwise. A card which is in good condition and operated correctly will create only a small amount of neps and will remove many of these fiber entanglements that are already in the stock. On the other hand, a card in poor condition will not remove many neps and will cause a much larger proportion of them to be formed. Insofar as neps are concerned, there is probably no other process in the spinning mill which has such a direct bearing upon the problem.

Improper settings of the card can be responsible for making neps; for instance, settings which will constrict the stock and cause it to roll between two assemblies such as the flats and the cylinder. Mainly, however, neps are carded in direct relation to the effectiveness of the clothing on the flats, cylinder, and doffer. Settings, also, are directly influenced by the condition of the clothing, as clean, sharp wire can handle fibers more effectively and therefore can be operated satisfactorily at closer settings.

The formation and removal of neps is only one of the factors influencing the quality of sliver that is directly effected by the condition of the card clothing. Sliver evenness is also a reflection of the condition of the clothing, for a cylinder loaded with fiber, or with wire smashed down as a result of chokes, will not carry an even load around its circumference or across the cylinder surface. This inability of all of the surface of the clothing to carry its full load will necessarily create light spots in the sliver. The cleanliness of the sliver is another characteristic very definitely related to the condition of the clothing. A series of tests were run some time ago with the purpose of determining the combined cleaning effectiveness of the picker and the carding operation. One of the most interesting results summarized was that, for a given set of conditions such as the adjustment of the settings and speeds and the general maintenance of the equipment used, there was a certain optimum amount of trash which could be removed by the picker and card combined. What this meant was that if the picker was set in such a manner as to remove perhaps 75 per cent of the maximum amount of waste, the card would remove the 25 per cent. On the other hand, if the picker took only 60 per cent of the waste from the stock, then the card would almost automatically take out the remaining 40 per cent. These percentages are not perhaps accurate in themselves but are an indication of the result of these tests. The value of this series of tests is that it shows that it is not necessary to subject stock to a harsh treatment in the opening line and picker

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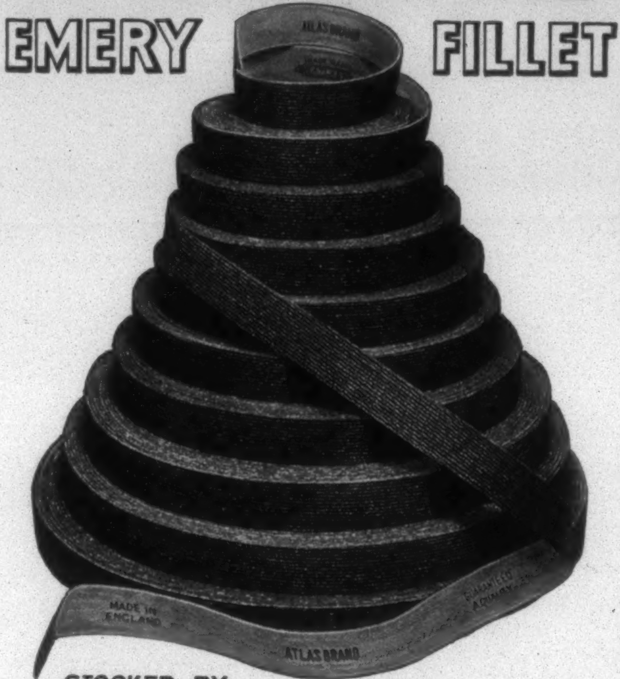

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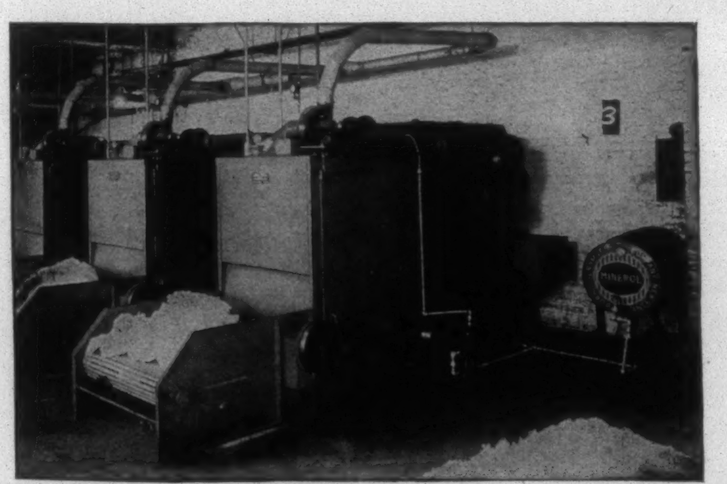

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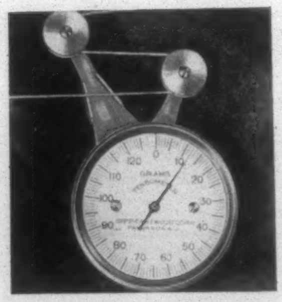

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in order to remove the smaller particles of trash which are so difficult to separate from the good fiber.

Whereas, the picker is acting upon clumps of fibers and is separating trash from stock in the presence of strong air currents generated by fans, the card separates each individual fiber from all others and does this in such a way that the trash is allowed to fall through screens into comparatively stagnant air zones without the possibility of air carrying the trash back into the stock again. A mill may therefore take advantage of this faculty of the card and picker and, realizing that such trash that is not removed by the picker will be taken out by the card, adjust the beater speeds of the picker to clean the stock of the larger impurities but to leave a large proportion of the pepper trash for the card. This will allow the stock to be handled more gently in picking and will reduce the possibility of fiber breakage and the weakening of fibers, due to over-harsh treatment.

This is true only in cases in which the clothing of the card is in good condition. Clothing which is not sharp and which is hindered in its action will not effect a complete fiber separation and will not remove many of the small trashy particles otherwise possible. Such sliver from a poorly kept card will be neppy, gray speckled from trash, and uneven. If the clothing is very bad, and if too many of the cards in the mill are in the same shape mechanically, the yarn will be weak, dirty, and poor in appearance.

The cylinder and the doffer must be covered with clothing that will grip the fibers so that they will be carried through the card without slipping into the spaces between the wires. This grip is obtained by grinding the top of the wire so that it will have microscopic ridges and barbs which will catch the fibers. Under the stresses and strains of carding, the abrasive action of the fibers passing over these tiny barbs will tend to smooth them until the required grip is lost. When tops of the wires are smooth, the fibers will begin to slip down between the wires, and the clothing will begin to load up. This can be remedied only by again grinding until the wire is sharpened and the barbs are restored.

The Importance of Flexibility

Card clothing, in order to card the stock properly, must have a certain amount of flexibility. As fibers build up between the spaces between the wires, the mat which is formed becomes firm and begins to impede the free movement, cutting down the play of the wire and making it stiff and unresponsive to the pressures of carding. When the flexibility of the wire is reduced and movement is impeded, the loading is aggravated, and the process of loading is accelerated. Within a short time after loading becomes pronounced, it will become so excessive that the card will not be able to perform successfully. A loaded card is not able to grip and card fibers, and as a result, the fibers are rolled between the various carding surfaces. This rolling of stock is one of the main reasons for excessive nep formation, cloudy webs, and unclean, dingy sliver. The removal of impacted stock from around the wire of the clothing must be performed by some method of stripping, and is the first vital maintenance operation which must be attended to regularly, on a schedule standardized in accordance with actual mill conditions.

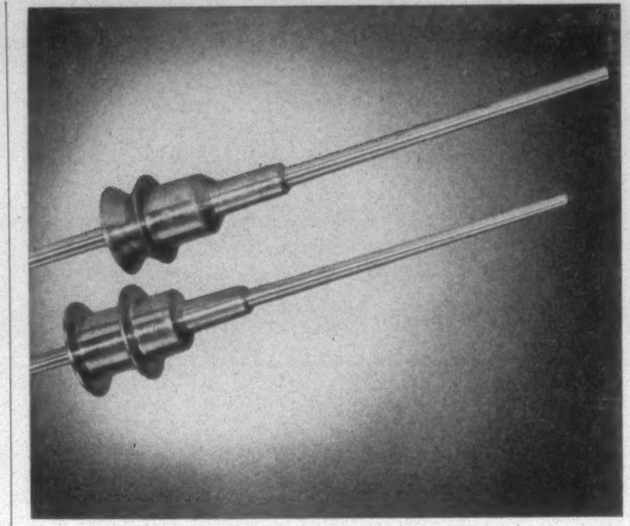
Of the two essential operations, stripping and grinding, stripping must be done at more frequent periods, the exact interval dependent upon the type of stripping equipment used. In general, there are three main types of strippers, the hand stripping roll, the air and vacuum stripper, and the continuous stripper. The hand stripping roll, or wire covered roll, is a roll covered with straight wire needles which are set to penetrate between the wires of the card clothing and to brush the fiber impacted there up to the surface, and to collect it for easy removal from the card. The vacuum stripper is a method of cleaning the cylinder and doffer from this waste by using a strong vacuum current, in some cases aided by a wire covered roll, directed through a nozzle, to suck the waste from the clothing and pull it to a central waste disposal bin. The continuous stripper is a stripping unit, differing from other types of strippers in that it is in continual operation as an integral part of the card and therefore eliminates to all practical purposes the necessity of stripping the cylinder. With the continuous stripper the card still has to be stopped for stripping the doffer with a wire covered stripping roll.

The interval between strippings varies tremendously between different mills even when using the same type of stripping equipment, due to the local conditions. Factors which will have a bearing on the intervals between stripping are the staple length of the stock, the character of the stock, the production per card per hour, the condition of the clothing, the skill of the operators in the use of stripping equipment, and the condition of the stripping machinery. Short, dirty cotton, high card production, hooked and tangled clothing, and poorly covered strippers all will make more frequent stripping necessary. A discussion of card stripping can develop into a very controversial subject, as many technicians have their own theories as to how stripping should be carried out and as to just what is the object of stripping.

The introduction of the continuous stripper has prompted many arguments both pro and con concerning stripping. The plain wire covered stripping roll used manually once or twice a shift is without a doubt the most efficient method of stripping, insofar as the removal of all impacted fiber and waste from between the wire of the clothing is concerned. This roll, with the stripping wire straight and even, can be set very closely to the foundation of the card clothing, and will clean down practically to the base of the wire. The vacuum stripper consumes more power, is more expensive to purchase, but requires less labor, than the other methods of stripping but may not strip as thoroughly as the other means. The continuous stripper is probably the least efficient means of stripping with respect to the thoroughness in which the impacted fiber and waste is removed.

This immediately brings to a point the question as to what are the purposes of stripping and whether thorough cleaning is essential, or even beneficial. Bearing in mind that the entire subject has been the source of many interesting and intelligent arguments, the concensus of opinion among experienced technicians approves the following theory.

Stripping of some sort is definitely required. As the fibers are being carded, they are carried along on the points of the wire of the clothing. However, some of the fibers slip from the points and fall down between the wires, below the point of the wire, and remain there until removed by some type of stripping device. As more and more fibers, the quantity in a given time governed by factors described above, are deposited in the inter-wire spaces, the mat thus formed decreases the carding efficiency of the machine. This is due to a certain extent to the lowered ability of the clothing wire



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to move freely in its required carding arc so that the carding action is impaired, reducing the quality of the sliver produced and also allowing more fibers to slip past the points of the wire. The mat also builds up more rapidly as the ends of some of the fibers already in the mat project upward sufficiently to catch and retain fibers which would otherwise pass forward and be delivered as good sliver.

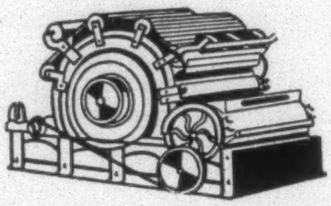
Most important of all aspects of stripping is the fact that the card is recognized to have one serious defect. This is its inability to act as an efficient fractionating machine or its lack in being able to select from the stock passing through it, the short fibers and to allow the longer spinnable fibers to pass through as good sliver. This has been demonstrated and proven many times over by making fiber arrays of the picker lap being fed into the card, the strips taken from the flats, cylinder, and doffer clothing, and the sliver delivered. In each case, the general outline of the arrays will be very similar, showing that the percentage of long fibers is the same, or that the card cannot remove short fibers from spinnable fiber as is the case of the comber. Accepting this to be true, the question immediately raised is that, if the stock removed from the card is as good as the stock delivered as sliver, why is this stripped stock wasted? The answer is, of course, that the stock is not wasted but is salvaged by one of three different means; by selling the strips to a waste dealer, by returning the strips to the picker room for blending with new unprocessed stock, or by use of the continuous stripper. The disadvantage of selling the strips is that the value of this perfectly good stock is only approximately one-half of its price as raw stock, and therefore the mill is losing money on stock which could be converted into yarn. Putting the stock back into the raw stock at the picker room is undesirable, due to the fact that it is then subjected twice to the harsh beating action of the pickers and therefore considerably weakened and broken by over-beating. The use of continuous strippers has been proven, in many instances, to be the best method of reducing card strips, as the fibers on the cylinder are brushed to the surface of the wire and, in time, are passed forward to be incorporated as good sliver. There are still strips and card waste to be handled even if the card is equipped with continuous strippers, but the main bulk of this waste is eliminated to the extent that this accessory will show a complete return on the original investment within a comparatively short time. The continuous stripper has not been completely accepted in all mills, but its use should certainly be considered where conditions indicate that it would be practical.

Sliver Weight Variation

One of the evils of stripping, besides the loss of good spinnable stock, is the fact that stripping causes a variation in sliver weight. Immediately after a card is stripped, the clothing is practically clean, and for a few minutes, the sliver will be very light, as a larger proportion of the stock passing through will tend to collect on the cylinder. This lightness will be reflected in the sliver, due to the fact that the card is geared to produce a given weight of sliver with a given weight of picker lap fed, and assuming a normal condition of the clothing and an average loss of fiber as waste. This excessive loss of fiber will gradually diminish and come back to average, but there will have already been produced a considerable amount of light sliver. The weight of the sliver will gradually build up to a maximum that will be reached as the card is again ready for stripping.

Even though stripping is expensive and causes uncontrollable sliver weight variation, the clothing must be cleared of impacted fiber. A very thorough stripping is also required just before grinding to eliminate the possibility of fire. This type of stripping is generally done by the use of the manually handled wire covered stripping roll. Every card room should have this type of stripping roll available, as it will be required regularly even though other stripping systems are used.

The stripping roll is very simply constructed, consisting of a wooden roll mounted on a shaft and covered with a wire fillet. This fillet is made up of wire having the same shape as clothing fillet but longer in length and spaced more widely apart. The fillet on the stripping roll has a knee, or bend, in the same manner as card clothing. The roll is turned during stripping by means of a pulley at one end, grooved to receive the rope which drives it from the main pulley on the cylinder shaft.



Stripping is an easy operation, but there are certain points to check to assure clean stripping and to prevent damage to the card clothing. First, the card should be stripped whenever the wire appears to be loading up with waste and fiber and before the loading is too far advanced. The length of time elapsing between stripping will depend upon local conditions, although the average for a card on fine work will be every four hours and for coarse work every two and a half or three hours. Frequent stripping is to be preferred, as the condition of the carding fillet will be more standard at all times, and the sliver weight variation arising from this source will be reduced accordingly. In addition, as the wire will at all times be in a better condition, there will be a minimum amount of neps produced, and the sliver will be cleaner, as more trash can be removed by the more efficient action of the wire. Irregular stripping can be one of the main reasons for poor carding.

Although maintenance of the stripping roll is simple, it should never be neglected. The roll must be round and true on its bearings, as a roll which is not concentric will not penetrate deeply enough into the wire on one side of the roll and will strike the surface of the foundation of the clothing on the other. The rope which drives the stripping roll must be under sufficient tension to drive under its working load without slippage, so that the correct stripping speed will be maintained.

The operating speed of the stripping roll is a point which must not be overlooked. It must be remembered that all carding is based upon the transference from one roll or cylinder to another, due, in part, to the divergence in surface speeds of the two. The surface which is moving at the lower rate of speed will accumulate the fibers. Therefore it is essential that the stripping roll is used while at the correct speed. Another speed factor to be checked is the speed of the cylinder during the time it is being stripped. While it

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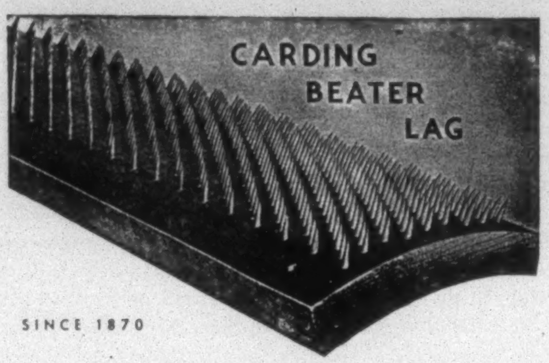

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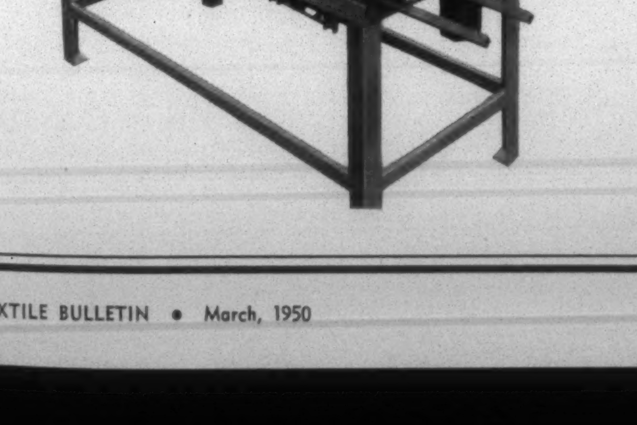

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is possible to strip with the cylinder running at its normal speed, the stripping will not be as thorough, so it is the general practice to reduce the cylinder speed in order that a more efficient transfer of waste and impacted fiber will be made to the stripping roll. The best stripping conditions are found when the cylinder is turning very slowly and the stripper is turning very fast.

The clothing of the stripper roll is often damaged by rough treatment and is continued to be used irregardless of the potential damage which it presents to the card fillet. The wire of the stripping roll is easily smashed, tangled, and otherwise knocked out of line. Wire in this shape cannot obviously fit into the interwire spaces of the card clothing and therefore will not clean the entire surface and may cause loosening and jamming of the card wire. The ends of the stripping roll, in particular, are more apt to be mashed flat and to become tangled. This is to be guarded against, as the selvages of the card clothing will not be cleaned thoroughly and will begin to load prematurely, and it is the card selvages which are most important for good carding in general. When a stripper roll has been used for some time and begins to wear out, it may be found upon inspection that the stripping wire has loosened in the foundation and is falling out. Such wire should be replaced immediately to prevent the loose wires finding their way into the working mechanism of the card and into the stock.

The third check-point necessary in the satisfactory operation of stripping is the depth the wires of the stripping brush penetrate into the spaces between the wire of the card clothing. At all times, the stripping roll must be set perfectly level across the face of the card so that one end of the roll is not deeper than the other. Through carelessness, the roll may be set at an angle and will be too deep on one side and not deep enough to clean on the other. The stripping roll should be set so that the wire will reach to approximately the knee of the card clothing. If the wire is set too deeply, it may strike the foundation of the clothing, raising the clothing foundation until it is napped. A napped surface at this point will later be the cause of real trouble, as the stock passing through will be caught by the nap so that the cylinder will become loaded in a short time. A very shallow setting of the stripper is not as serious.

The length of time taken to wear the points of the wire smooth depends on the production of the card, the type of stock being processed, and the skill employed in grinding. In determining the interval between grinding, it should be emphasized that the quality of the sliver produced is reflected, as in stripping, by the attention paid to grinding. It is very poor economy to extend the grinding interval as long as possible, for dull wire reduces the efficiency of carding. This drop in efficiency is in reality a drop in the ability of the individual wire to hold the individual fiber, so that the fibers will be rolled around on the wires instead of being firmly held, carded, and then passed forward to the coiler as finished sliver. The rolling and collecting of the fibers will cause an increase in the number of neps produced and will be noticed as a general lowering of sliver appearance. It is to the mill's advantage, from the standpoint of sliver quality and longer clothing life, to grind often and lightly rather than to grind heavily at more prolonged periods. Grinding schedules vary widely from one mill to the other, but a schedule may be outlined basically to conform to one of two suggested rules. One such standard is that the mill should grind any card after it has processed approximately 3,000 pounds of stock, the other states that grinding should be every 170 to 210 working hours. As a basis for comparison, assuming that a card processed ten pounds per hour, the card would be ground every 300 hours by the first method, and this would not be often enough for many types of work and under many mill conditions.

Traverse Grinder

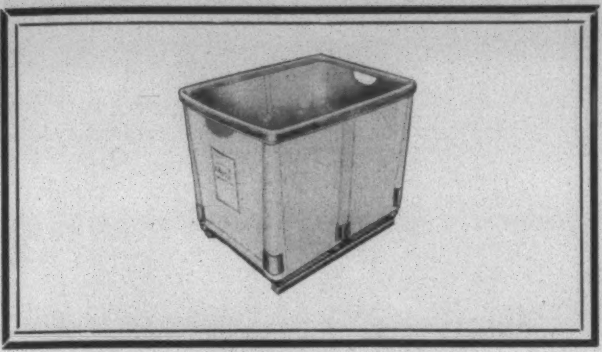
Grinding of the cylinder and doffer clothing is done by the use of a traverse grinder. This grinder is a narrow grinding roll which traverses back and forth on a shaft across the face of the card. A traverse grinder does a much better job at these points than the long drum grinder, as it forms a truer surface of the wire, and as the sideways motion bends the wire slightly to the sides and therefore grinds the wire to a more tapering point. The speeds which are recommended for the traverse roll grinders depend upon whether it is used for the doffer or the cylinder, and upon the type of work which the card is doing. Generally, the doffer grinder is run at slightly lower speeds than that for the cylinder. Suggested speeds for traverse grinders are 625 r.p.m. for the doffer and 825 r.p.m. for the cylinder, as it will not damage the card clothing, but the stripping or cleaning will not be as thorough and the card will load again before the next scheduled stripping period. The real complaint to be found in setting a stripper too shallow is that a certain amount of neps, waste and impacted fiber will be brushed to the top, or near the top, of the clothing wire without being removed. This waste will then be carried forward through the card in small bunches and will become incorporated into the sliver, eventually causing either an end down in a subsequent process or a defect in the finished fabric.

A burnishing roll is another card accessory which should be included in the maintenance equipment of every card room. There should be one stripping roll and one burnishing roll for every 20 cards. The burnishing roll is very similar to the stripping roll, except that the wire with which it is clothed is straight in instead of being bent with a knee. The use of a burnishing roll is condemned by some mill men and recommended by others, due to the fact that burnishing smooths the point of the card wire. The roll should not be used after grinding, as it does destroy the sharp point, but it will be found useful in polishing wire which has become rough due to excessive humidity. Improper grinding, leaving a burred point, can be corrected to a certain extent by burnishing.

Georgia Operating Executives' Program Set

N. Barnard Murphy, vice-president of Riegel Textile Corp. at Trion, Ga., and president of the Cotton Manufacturers Association of Georgia, will address a meeting this month of the Textile Operating Executives of Georgia, according to John S. Turner of Columbus, general chairman. The meeting is scheduled to begin at 9:30 a. m., Saturday, March 25 in the auditorium of the A. French Textile School, Georgia School of Technology, Atlanta.

Following Mr. Murphy's talk H. T. Gilbert of Athens will lead a discussion of carding practices and T. M. Hampton of LaGrange will conduct the spinning discussion.



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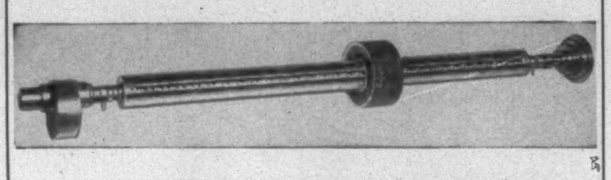

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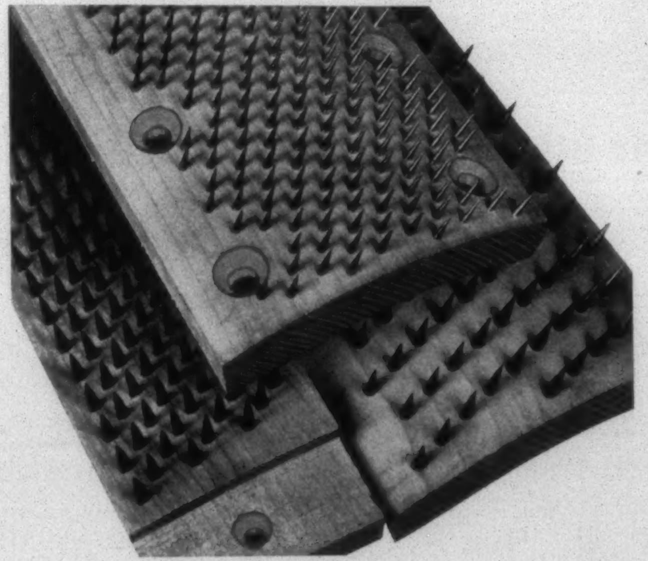

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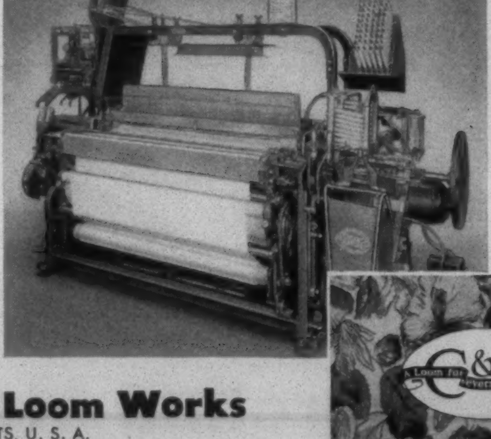

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Warp Preparation & Weaving

Quality Control Of SLASHING & WEAVING Through Methods And Systems Of Inspection

THE group which discussed methods and systems of quality control in slashing and weaving during the Spring meeting of the Eastern Carolina Division, Southern Textile Association, was led by J. R. Meikle, general superintendent of Rosemary Mfg. Co. at Roanoke Rapids, N. C., and new chairman of the S.T.A. division. A stenographer's report of the discussion, abstracted, is published on this and following pages.

The Chairman: What method of inspection do you have on your slasher to control the quality of yarn that is produced? Who attends to this, what are the duties involved, and what do they do to control the quality of their work? Will someone start the discussion? How about control of size, heat, temperature, etc.?

Mr. AA: In our mill the tender is the man we hold responsible. He has to start in the back of the slasher. We weave both fancy and white goods. Someone might put the wrong color on, he must check to see that it is correct. If extra ends are left over, or the wrong number of ends are on the beam, someone made a mistake in counting. He must count each individual end.

The Chairman: Does anyone have the combination between the helper and the slasher operator?

Mr. BB: On plain goods work or fancy fine yarns of one color I wonder if anyone uses the idea when a lap up is found on the creel to put spools on the end?

Mr. CC: We operate on white work but we do not use the practice of adding an end, we simply borrow an end from the selvage which takes less time and is less trouble than having extra bobbins on the creel. When we lose an end on the beam or prior to the slashing operation we replace it after the work is finished.

The Chairman: Concerning your loom beam, do you have any method of inspection for the loom beam before putting the loom on the slasher? Are the heads in line? Is there any particular person to oversee this operation? In order to make good weaving we must have good warp and good filling. In order to do that we must have good slashing. We need good inspection to produce a good warp. Does anyone follow up the temperature on the charts? Who inspects them, the second hand, or the overseer?

Mr. BB: We find in slashing our warps where we weave so many sets that are identical they are creeling set after set. We find the temperature where we got the best speed and control and instruct our slasher tenders to use that temperature. This does not involve a lot of time, it is just a matter of turning a knob. We determine the temperature where any given number of yarn should be, and the speed at which the slasher is to be operated. The slasher tender checks with the second hand if it must be changed. Of course, we check back to see if we have an ample steam supply so that the temperature will not fluctuate.

The Chairman: I think stretch is a very important factor. How is the amount of stretch put on the yarn during this process controlled?

Mr. DD: We have clocks at each end, one at the back beam, the other at the loom beam. We set both clocks at zero and get the stretch off the section. We keep a record of both sets.

The Chairman: What if you find more stretch than you thought reasonable?

Mr. DD: You would have to watch the amount of tension on the creel.

Mr. BB: What takes place between creel and size box? There are two points of stretching the yarn, before it enters the size box and over the cans before the yarn is dried.

The Chairman: I understand that you can get stretch in both places. I am concerned with the over-all stretch.

Mr. EE: What percentage of stretch would be found on a 20s cotton yarn, not exactly, but approximately?

Mr. BB: We find about one to one and one-quarter. There is anywhere from 1.2 to 1.5 per cent on a low sley warp with single yarn.

Mr. FF: Is that stretching in your creel?

Mr. BB: We use, primarily, the stretch from the size box to the loom beam. I do not get much this way. What per cent do you get, Mr. D, on your dye beams?

Mr. DD: About two per cent is the least I can get. The more you hold it the better off you are.

Mr. BB: On the stretch control, does anyone have a positive driven creel? We use a nylon rope as friction.

The Chairman: Does anyone use a positive let-off motion on their creel?

Mr. DD: I went into it but someone said that it cannot be used. We dropped it because they were getting slack ends of yarn.

Mr. GG: I believe some of these gentlemen have a thorough system of inspecting machinery on a slasher. There are so many things you do not see. The slasher tender does not notice too much. You are going to need to have a system of inspection that does not come out in daily work. It is important to have a regular period for this inspection and to cover the entire machine very thoroughly. If you would employ such a system and found parts that were worn it would require some time to get it working again. You could hold the inspection sheet until those parts had been fixed or replaced. Do you gentlemen employ such a system on the slasher?

The Chairman: Does anyone use this type of system for checking worn parts where a record is kept until the parts are repaired?

Mr. BB: You are speaking of a mechanical inspection. The maintenance crew in the plant assists with the heavy mechanical attention involved. The greatest points of wear are in the chains and sprockets. Our plant maintenance force inspects and keeps these in repair. Steam fitters and slasher operators do the greasing. We put on a two-week inspection period because our slashing is quite heavy.

Weaving

The Chairman: Suppose we move on to the weave room itself. Start with the warp to be tied into the loom. I think that probably in starting we could begin with the loom itself after the warp has run out and the loom is empty. What type of inspection is made on the loom before the new warp is put into the loom? Do you have a particular system or does the loom fixer just start it back up?

Mr. HH: We first clean the loom and then our loom fixer inspects it and goes over it thoroughly for worn parts. After he is through he greases it to be sure that it is lubricated properly, then the head loom fixer makes another inspection to see if some part is worn. He makes note of it and gives it to the loom fixer and sees that it is fixed, before the loom is started. We make another inspection for these worn parts and for faulty adjustment. That has helped us as much as what the head loom fixer does.

The Chairman: When the loom becomes empty, the loom fixer greases and lubricates before he ties back?

Mr. II: Yes.

Mr. BB: Who does your warping?

Mr. II: The loom fixer does his own.

Mr. JJ: Our foreman does the inspecting in our plant, he checks one item at a time, and actually makes a thorough check of the loom. He uses a check list to make sure everything is in proper working condition. We are trying to do a good job. He inspects one loom per day, the next day when he goes back to check he makes sure the correction has been made.

Mr. AA: Do you find that a fixer will or will not use additional supplies?

Mr. HH: We have not found that they want to put them on that bad.

The Chairman: Do any of you know anything about steam cleaning? Do you clean the loom in position by steam?

Mr. KK: Yes. We have just a regular plant unit.

Mr. BB: Does anyone here use a generating unit with any success, the portable kind? There were many elaborate promises made concerning it, but my experience with it was unsuccessful. The steam was too wet. Also, there was too much cleaning necessary after its use, and the time element was too great. It was supposed to take only 15 or 20 minutes for the whole process, but it was doubled and tripled by the time we finished thoroughly. In connection with this, we had another problem. None of our looms were fastened to the floor by lag bolts, but are on pads fastened to the floor. When the pads got wet in the process of cleaning with this unit they broke loose. Our engineer had quite a bit of trouble with it.

Mr. GG: We try to hold this operation of checking looms to as simple a process as possible. There is no laboratory report necessary. We give the fixer as many gauges as is possible and gauge every part necessary to gauge, then the second hand checks behind him. We do not make out any report whether there are worn parts and replacements necessary. Periodically, the supervisor will make a spot inspection. There again it is as simple as possible. We do not make any reports which consume much time. We try to emphasize fixing and not making a report. We think that if a part is found defective or if the loom is not set properly there was some misunderstanding on it and the fixer must immediately go back and correct it. Each loom will require a different type gauge. The Draper X-2 loom, a dozen or so gauges can be used for that loom. Most of the important parts can be gauged. We have a total of about one dozen gauges. One is a four in one, for the stroke, sweep, cams and tie arm.

The Chairman: You have had the method of inspection in your plant for quite a number of years. What improvement have you been able to see over the old type of inspection?

Mr. KK: We have experienced considerable improvement. We think the greatest advantage, it seems to be the best, as reports are very laborious for fixers to make out. We tried to make it as simple as possible and give each fixer a list of things and settings which should be done when the warp is out. He did not have to check it off when these things were done. He is expected to follow this list. The job is to train him to follow it. We think that if he is held responsible for checking the loom when the warp is out and doing the job then, the next warp can be placed on right away provided the loom is in good condition and the next warp should be expected to run good quality cloth.

Mr. AA: Have you noticed a decided decrease in the seconds?

Mr. KK: Yes. We started this system of going over it when the warp was out, and now they have seen the importance of going over the loom at this time and that way they do not have to go over it until the warp is out again.

Mr. LL: Do you find that your total down-time for your loom is less under this system? Have you noticed any decrease in your supplies?

Mr. KK: I do not think so, after we once got over the rough part we did not.

Mr. MM: Your down-time is greater if the inspection is made when the warp is out. I believe you save by not having to stop your machine after each warp is off. Your efficiency will be greater.

The Chairman: Regarding the warp being tied back, what system is used there?

Mr. KK: We use both new patterns and tying back, but I would employ the same system. It doesn't blow dirt on the warp.

Mr. HH: Not for denim.

Mr. MM: Does anyone here working on white cloth clean between times, from the time the warp runs out to the time you put on another?

Mr. BB: We do not do any cleaning when our warps are out. We keep our looms clean and when the warp runs out we put it right back into operation. We have other methods of checking our looms. They follow a chart and keep checking them. We simply use compressed air to clean our looms.

Mr. MM: Do you or your fixer make a thorough inspection of the loom when the warp is out?

Mr. BB: No, we do not use that time to check the loom. We have another period for that. From the description of the cleaning and blow-off, how do you keep your cleaning crew from blowing grease from the crank shaft? I have much more grease on the new looms. The only way to put grease in a bearing is to put it in when the old grease comes out. About the only way we can tell is by watching for the old grease to come out, and using guns to put more in.

Mr. KK: How do you keep from getting it on the cloth?

Mr. BB: We do not keep it from getting on the cloth.

Mr. KK: How do you get rid of the old grease? How do you get it off the cloth?

Mr. BB: We do not have a great deal of trouble. In the inspection room they have a type of wash out, and what is not removed there is taken out during the bleaching and finishing process.

Mr. MM: How do you maintain a constant tension on the warps? Is there a method for maintaining that tension? It will control your width somewhat. Do you depend on your weaver or fixed, or who do you depend on for this?

Mr. II: There are instruments on the market for that purpose, such as tensometers. You would have to determine the amount of tension on each shade to get best results. By careful inspection they could all be set that way, if it feels right for the experienced operator.

Mr. BB: Mr. GG, does the average weaver know if they are off shade or not?

Mr. GG: You could set new loom up and let them get the sense of feel.

The Chairman: Does anyone have any further questions on the inspection of the loom proper before the warp is put into the looms?

Mr. BB: Most everyone who has new looms has gone to great lengths to keep their machines in top shape, do your beams show excessive wear, are they out of alignment due to excessive weight?

Mr. HH: We have several large beams, but we find that 26-inch heads are no more trouble than on the others.

Mr. BB: I have 30-inch heads and I find on the high-speed slasher we cannot get a satisfactory bearing. It must be oiled well. We find that the shoulders are beginning to wear. They want to travel in their slots.

Mr. KK: What are the disadvantages in running a 30-inch beam?

Mr. BB: Handling and space. We do not have an overhead beam. We had a 32-inch beam but could not slash with it.

The Chairman: If the loom is in good condition up to this point, how do you inspect the first cloth after it has been started up? Does the weaver, the loom fixer, or the foreman inspect the cloth after it has been started up?

Mr. AA: If the loom has been idle for some time on the first 50 yards you are going to make a lot of cloth that is not first quality goods.

The Chairman: Does anyone use a method of inspection by the weaver when they come in during the shift change?

Mr. MM: The weaver inspects his cloth at regular intervals throughout the day.

Systems of Marking Cloth

The Chairman: Do you use a system of marking your cloth?

Mr. MM: Yes, the shift coming on and the shift going off mark it a certain way.

Mr. KK: Does anyone use one-half of a yard taken off, and carried to where it is inspected and averaged?

Mr. NN: We feel it is almost necessary. We take at least one repeat or maybe more on every warp.

Mr. OO: We used to do that but our overseer came up with what we thought was a better idea. The second hand checks the warp as his job, then it is marked up on the loom and when the warp is tied back on he signs his name to it. We hardly have any rolls of seconds due to bad starts.

The Chairman: How do you do this?

Mr. OO: He checks by the pattern card.

Mr. II: If it is general practice, what system do you use to have

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the inspector mark the cloth during the finishing process? Can you go right back and ask who did it?

Mr. OO: We mark it with a small piece of twine of a different color which can be removed when we are through processing it. We have found the best results when each inspector has a different color, then, when there is a defect we can check the color and go back to the person using this color.

Mr. KK: Does anyone have a system we might adopt as a permanent marker which we could even ship out to the market?

The Chairman: If it has been passed as a first-quality piece of goods and in the final inspection they find a defect, how is this marked?

Mr. PP: Our loop cutter marks with a small piece of filling yarn, just enough to see the mark.

Mr. AA: Mr. DD, do you reclassify it in the final inspection?

Mr. DD: Yes, in the final inspection we use the string as a guide and when the quality has been established we just cut the string out. We do not leave the string in when it is shipped.

Mr. QQ: We have found seconds in finishing, too.

The Chairman: After your cloth is in the cloth room for inspection, how do you report the seconds to the weave room, and how long does it take to correct that piece of cloth? What measures have been taken to report that cloth to the weave room?

Mr. AA: In our weave room we do have a primary inspection. The inspector will mark with a chalk or a crayon. When all of this cloth gets to the cloth room it is reclassified. They indicate every defect and we contact each room and send the piece of cloth back if necessary.

Mr. GG: We have a re-inspector who classifies the goods and makes out a ticket showing the looms number and the cause of the defect. We try to get these back several times on each shift. He gets the loom fixer to correct the fault if it is mechanical.

Mr. JJ: It comes right from the weave room?

Mr. GG: Very close to it. After giving one ticket to the weaver we post the other one on the board. If we have a defect in a roll of cloth, that defect shows up on the pattern card.

Mr. HH: In our plant the roll of cloth is taken to the inspection room where the defects are marked in the cloth. The inspector records only the looms that have defects in them so on this report blank only the number of rolls which have made seconds is recorded. If the defect is bad they immediately notify the overseer and he notifies the weave room to try to catch it then. These reports go back to the weave room if the loom has a guide on it and someone from the weave room dates it and records a certain number of yards or a certain defect. This way you can go the sheets and see how many times it has repeated the same defect.

The Chairman: Do they take care of it by the shift or the loom itself?

Mr. HH: Actually, by the loom itself, as well as by the section.

Mr. KK: How far back do these reports go?

Mr. HH: In some cases for a year.

Mr. RR: Do you have these reports hanging in the room?

Mr. HH: Yes, and we think it is very effective. We have had this system for a number of years now.

The Chairman: Do you shear and bleach before or after inspection?

Mr. DD: It is done after inspection. I do not know any advantage of doing it before.

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By FRANK D. HERRING

Part 12—Loom Construction (the Pick Motion)

BOLT the front pick shaft box (or bearing) in place on the loom side and move it forward, towards the front of the loom, and down as far as the bolt slots will allow, and tighten both bolts securely. Then put the pick shaft in place and slide the back pick shaft box on it and tighten it securely. It is sometimes necessary to remove one or both of the boxes and file them for proper fit to prevent the shaft from binding. It is absolutely necessary that the pick shaft work perfectly free without any binding whatsoever, and all the lengthwise play should be removed by adjusting the back box forward. Next, put the pick ball in place on the pick shaft, and secure it by applying and tightening the pick ball cover. Care should be used when applying the ball cover to be sure that the pick ball cannot rise up high enough to contact it. It is very often necessary to file the filing bars on the cover to raise it to the proper height.

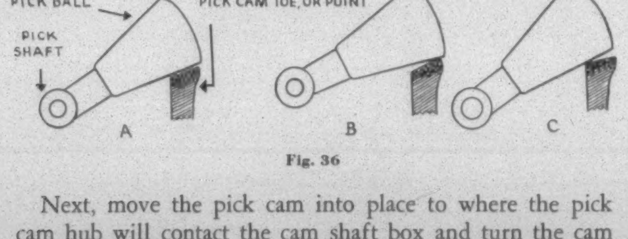

Fig. 36

Next, move the pick cam into place to where the pick cam hub will contact the cam shaft box and turn the cam to a point where the pick ball will rest on the highest point of the cam point, then adjust the back pick shaft box up or down, as needed, to obtain the setting, between the pick ball and cam point, shown in Fig. 36A. As shown, the pick ball should contact the pick point its full width. Fig. 36B shows a setting where the pick shaft box is too high, causing the pick ball to contact the point only on one side, the outside highest point. Fig. 36C shows setting obtained by the pick shaft box being too low, allowing the pick ball to contact the point on the inside lowest point. Either of the last two mentioned settings will cause excessive wear on both the ball and the cam point.

Bolt the pick cam onto the pick shaft, and adjust it so as to allow the top of the arm to project three-quarters of an inch above the top of the pick shaft, and tighten it securely. Three types of pick arms are used on Draper looms—short, on narrow looms under 36 inches wide; medium, on looms 36 to 50 inches wide; long, on all looms above 50 inches. I would suggest the same setting for all three when building the loom. Repeat the above-mentioned operations at the opposite end of the loom.

Next, build the parallel assembly, shown in Fig. 37A and B. (This is best done by holding the parallel in a vise.) Next, put the picker stick up through the slot in the lay, and slide the parallel in place on the end of the rocker shaft and tighten it securely. Be sure that the end of the parallel fits snugly against the outer end of the rocker shaft box. Loosen the spring stud nut enough so that spring stud and nut can be turned together. Using two wrenches, turn the stud until the slack is taken out of the heel strap and the spring shell stops turning. Now turn the spring stud to provide the necessary tension. Tighten the spring stud nut

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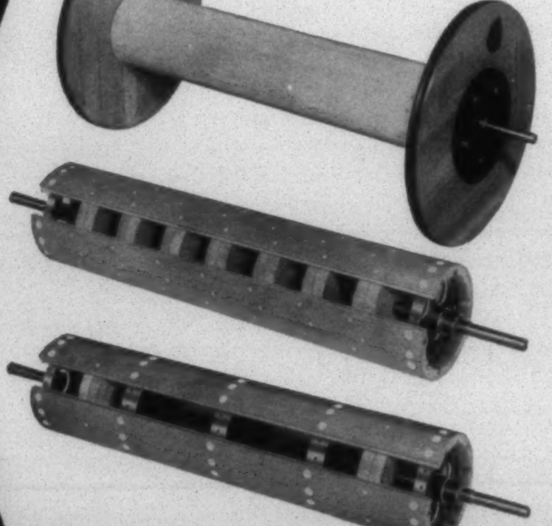

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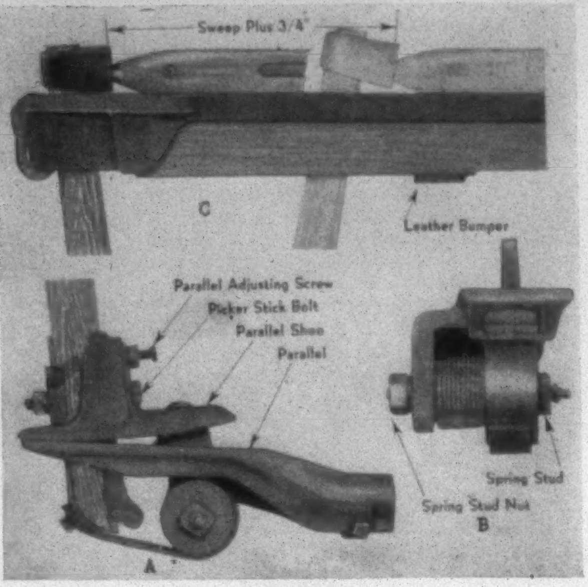

Fig. 37

securely, while holding the stud in position with wrench. Repeat this operation on opposite end of the loom.

Put the short lug strap in place on the pick arm and bolt it onto the lug strap connection, and adjust the lug on connection to a point where lug will turn freely, but with a minimum of lost motion between the lug and connection. Attach the lug strap hanger to the picker stick, then put the long lug strap in place and bolt it onto the lug connection; tighten the long lug bolt just enough to hold it straight with the lug connection and adjust the lug strap hanger to a position on the pick stick to where the lug strap assembly will be two inches higher on the picker stick than it is on end attached to the pick arm; then tighten the lug strap hanger securely. Repeat this operation on the opposite end of the loom.

With the crank arm on bottom center, slide the pick cam into running position, up against the inside end of the cam shaft box, then turn the pick cam until the pick ball rests on the highest point of the pick point and adjust the long lug to give the desired sweep, or stroke on the picker stick; then tighten the long lug strap belt securely. Repeat this operation on the opposite end of the loom. The sweep (or stroke) on the picker sticks will vary with the different widths looms and the fabrics being woven. But regardless of the width of the loom the sweep on stick must be sufficient to release the shuttle from the gripping position between the front box plate and the back binder.

Next, adjust the round pointed set screw in the pick cam rim to a point where there will be one-quarter of an inch clearance between the lug on the cam rim and the stop provided on the pick cam hub, then tighten the jam nut on the set screw securely. Make sure that all bolts in the cam rim and cam hub are securely tightened.

On all the older model looms the various mechanisms are designed for the pick cam to be set so that the shuttle will start moving out of the shuttle box when the crank shaft is on the exact top center position. But due to different designing and arrangements this is not true for the new X Model Draper looms. On these X Model looms the shuttle starts moving out of the shuttle box before the crank arm reaches top center. These settings will average from 2⅛ inches to 2¾ inches back from the front center position of the lay to the reed. To obtain these settings turn the lay to front center then move it back, turning the crank shaft over and back towards top center, the required distance and secure it in place with the brake. Put the pick cam in running position and turn it forward until the pick ball rests in the cup of the pick point and all the play is drawn out between the long lug strap and the picker stick with the picker stick back against the lay end strap; then tighten the set screws in the pick cam hub and secure it to the cam shaft.

The average settings for the pick cams on the various X Model looms might vary some from the above averages. Variations could be caused by a number of things, such as width of looms, fabrics being woven, and speed of loom. Should you have trouble getting your looms to pick and run properly, I would suggest that you write and state your problems to the loom builders and they will gladly furnish you with the necessary information to solve your problems.

You will note that I have suggested setting and timing the pick cam after all other settings have been made on the pick motion. This is somewhat unorthodox procedure, but I will have a great deal more to say on this subject, and my reasons why, when we get to weaving cloth and fixing the loom. After one pick cam has been set and tightened turn the crank shaft one revolution, placing the shuttle in the opposite end of loom, and repeat the above operation.

Put the check strap in place with the two slotted ends between the check strap holder and the shuttle check. Tighten the bolt just enough to hold the strap and check in place, and then turn the crank shaft until the pick ball rests on the highest point of the pick point, with the picker stick at its extreme forward position of stroke, and adjust the check strap so that it will be drawn tight against the outer end of shuttle check and have one inch clearance between the inside loop and the picker stick. The bolt should be placed central of the slot in the shuttle check, and tightened securely. Turn the crank shaft one revolution, placing the shuttle in opposite end of loom, and repeat this operation on opposite end of loom.

When using check straps with hair on one side, and many mills do use these, the hair side should contact the picker stick. Check straps will vary in length. Most straps used on Draper looms are 22 to 23 inches long; this will have to be determined by the stroke, or sweep, of the picker required to operate the loom properly.

The pick shafts used on the older model Draper looms have a projecting piece made onto them which acts as a stop for the shaft when the loom picks. When building a new loom, or applying a shaft to an old loom, it is usually necessary to file this projecting piece in order to obtain the correct adjustment. This projecting piece strikes the loom side and stops the upward throw of the pick ball when it passes over the pick point on the pick. This adjustment should be made so that the pick ball will have a slight clearance, not exceeding one-eighth of an inch, when it passes over the highest point of the pick point. On the newer X Model looms this pick shaft stop projection is made onto the pick shaft and is provided with an adjusting screw and a jam nut. Make sure that the jam nut is securely tightened after the necessary adjustment has been made. The entire pick motion is subjected to terrific strain while the loom is in operation, and

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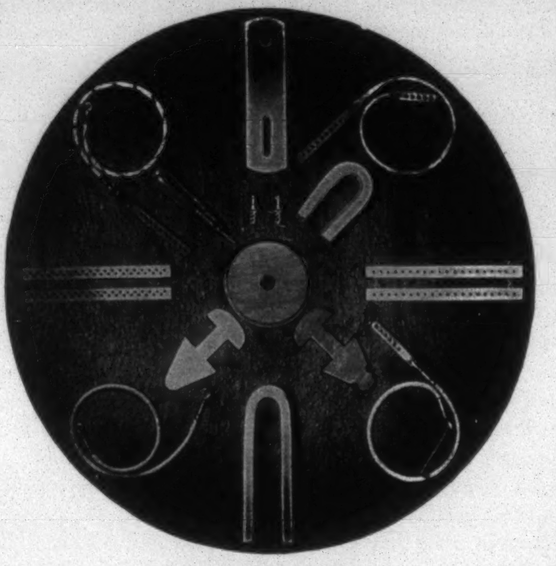

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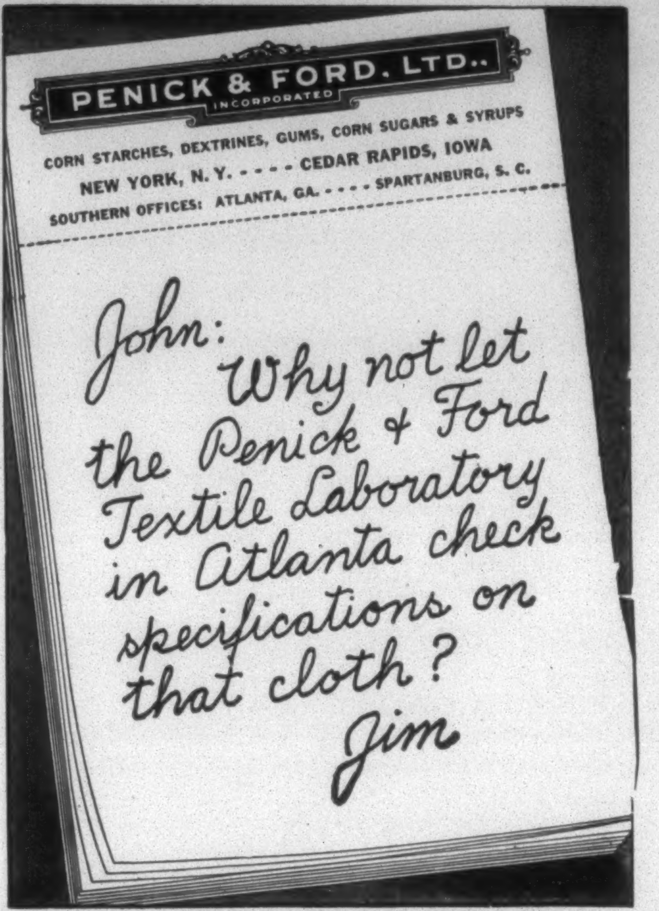

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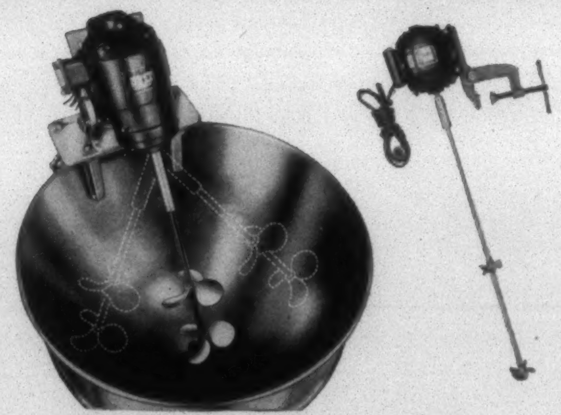

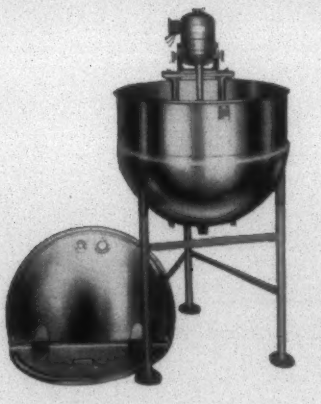

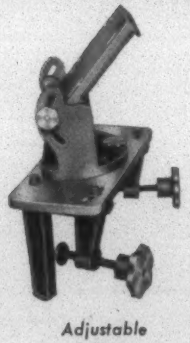

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good heavy flat and lock washers should be used on all the bolts, and they should be securely tightened.

Boxing the Shuttle

Adjust the front box plate to where there will be one-quarter of an inch clearance between the shuttle and the front box plate at the entrance of the shuttle box. Pull the shuttle all the way into the box until the shuttle spur contacts the picker stick. Then adjust the outer end of the front box plate and the eccentric back binder stud to line the point of the shuttle spur *exactly* with the center of the picker stick slot in the lay, and to raise the left-hand protector rod dagger five-eighths of an inch from the top of the frog. Then tighten the dagger stop so as to allow one-eighth of an inch clearance between it and the left-hand dagger (the dagger stop is shown in Fig. 28, January, 1950, issue of TEXTILE BULLETIN). There should always be a piece of leather between the dagger stop and the left-hand dagger.

Next, place the picker on the picker stick and make sure that center of the hole in picker lines *perfectly* with the tip end of the shuttle spur. If the picker does not line with the spur, remove it and trim it out with a pocket knife to draw it to the right or left as desired. Parallel the picker so that the tip end of the shuttle spur will be on exact parallel line with the center of the hole in picker at extreme back and forward motions of the picker stick. This is done by driving the picker up or down at the back position of the stick, or by using the adjusting screw in the parallel shoe to raise or lower the picker at the extreme end of the forward stroke. While paralleling the picker be sure that the shuttle is resting flat on the lay end plate. Some recommend adjusting the picker slightly lower than parallel line with the shuttle spur at the extreme forward end of the stroke, but I do not think this is wise policy. The picker stick, and of course the picker, will rise slightly at the end of its forward movement when the loom is in operation. It might be possible to use enough tension on the parallel spring to prevent the slight rising of the stick, but I am convinced this would be very unwise for a number of reasons, which will be fully discussed later.

The picker should be secured to the stick with a five-eighths-inch No. 8 wood screw. On the right-hand end of the loom the screw should be inserted into the picker on the side of the picker loop pointing towards the end of the lay. On the left-hand end the screw can be inserted from the front side of the loop. It is more convenient to put the screw in from the front side, and is not objectional on the left-hand end. But if put in from the front side on the right-hand end the screw head will sometimes pick up the strand of filling yarn as the shuttle leaves the box, and this will cause stringy selvages and jerked in filling, which in most cases would have to be classed as defective cloth, or seconds. At no time should the picker be allowed to touch, or drag on the lay end plate. If the picker cannot be driven down low enough to parallel with the picker without touching the lay end plate it is the wrong type picker for the loom.

Mechanical Let-off Motions

There are several different types of mechanical let-off motions used on Draper looms. The Roper let-off is used more than any other, and that is the one I have chosen to cover. All parts of this let-off are shown in Figs. 38 and 39. To build, proceed as follows: Bolt the worm wheel shaft bracket in place, but do no tighten the bolts. Put the let-off pinion gear in place on the let-off pinion shaft, and secure it with key and set screw. Put the pinion shaft in place in the worm wheel bracket. Put an empty yarn beam on the loom, in running position, resting on the yarn beam bearings. Adjust the worm wheel shaft bracket to position where the let-off pinion gear will mesh properly with the gear on the beam head, then tighten the worm wheel bracket bolts securely.

Put the controlling lever bolt in place in the controlling lever stand and bolt the controlling lever stand in place on the loom side, and tighten the bolts lightly. Put the controlling lever in place, and attach the whiproll vibrator rod to it, then adjust the controlling lever stand to where the bottom end of the controlling lever will clear the top of the worm wheel shaft bracket one-quarter of an inch; then tighten the controlling lever stand bolts securely. Bolt the beam lever bracket in place, and tighten bolts lightly. Assemble the beam lever and the necessary collars provided onto the beam lever shaft, and insert the shaft through the beam lever bracket, allowing the beam lever to rest on the empty loom beam drum. Attach the controlling lever link to the link lever and slip the link lever in place on the shaft, but do not tighten the set screw.

Assemble the pallet, pallet spring, and the connecting rod onto the pallet lever and slip it into place on the let-off pinion shaft, and make sure that the top of the controlling lever link is held in place between the pallet and controlling lever. Put the rachet let-off wheel in place on pinion shaft

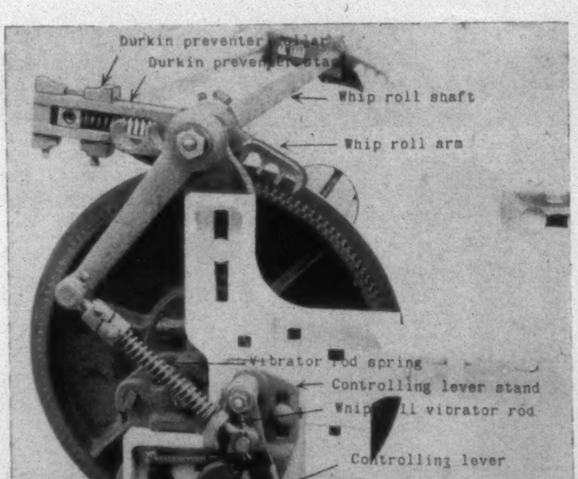

Fig. 38

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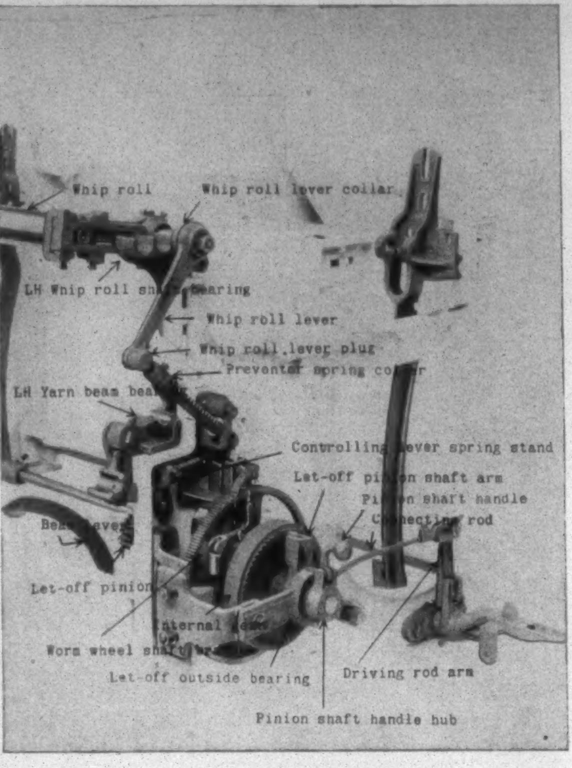


Fig. 39

and up against the pallet lever. Assemble the parts on the let-off friction dog, and slide it into place as shown in Fig. 38. Adjust the beam lever bracket to where the beam lever shaft will be center of the slot on end of the let-off friction dog, and tighten the beam lever bracket bolts securely. Put pinion cross head in place as shown in Fig. 38. Put the internal gear in place as shown in Fig. 39; this internal gear has a loose gear inside of it which of course should be put in place at the same time. Make sure that the pinion gear is up against the inside end of the worm wheel shaft bracket, and all other parts that have been assembled on the let-off pinion shaft are in a compact position, up against each other, then put the let-off pinion shaft arm on the pinion shaft and position it so that there will be $\frac{1}{16}$ of an inch clearance between it and the internal gear, and tighten the pinion shaft arm set screws securely. Raise the link lever one-quarter of an inch, with the beam lever resting on the loom beam drum, and tighten the lever set screw securely. Apply the let-off guard, outside bearing support, and the outside bearing. These parts should be filed and fitted to where there is no binding whatsoever in the outside bearing, and the bolts tightened securely. Put the pinion shaft handle hub on the shaft handle in place and tighten the set screws securely. Put the driving rod arm in place, and attach the connecting rod end to it, and slip the rod end onto the connecting rod.

Turn the lay to front center position and hold the pallet lever back against the stop on the controlling lever stand and adjust the connecting rod end to where there is no play between it and the driving rod arm and tighten the set screw in the rod end securely. Bolt the right and left-hand whip roll shaft bearings in place, and tighten the bolts lightly. Build the whip roll assembly as shown in Figs. 38 and 39, and put the whip roll shaft in place on the bearings and adjust the bearings to where there is one inch clearance between the shaft and the beam heads, and tighten the bearings securely. Put the whip roll lever plug, Fig. 39, in place on the whip roll vibrator rod and tighten the set screw securely.

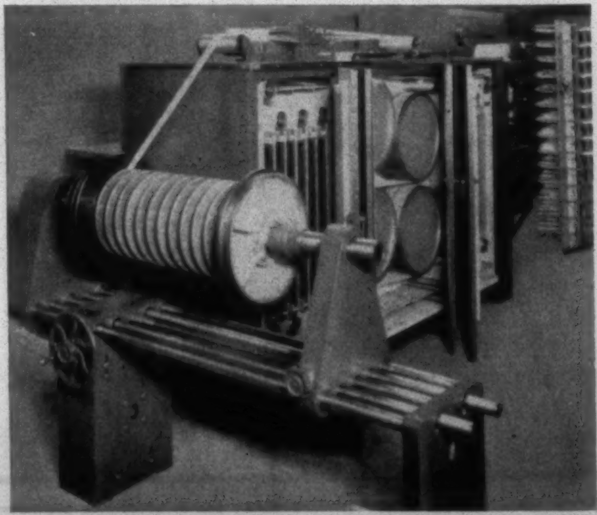
All let-off motions, mechanical or friction, have one thing in common—all the moving parts must work absolutely free of any binding whatsoever.

Small-Scale Slashers For Experimental Purposes

TWO recently developed slashers are the center of much interest in the textile industry today. One, called the Callaway slasher, is in production by West Point (Ga.) Foundry & Machine Co., a division of Batson-Cook Co., and the other is an experimental model developed by Monsanto Chemical Co. which has been set up in Merrimac Division textile laboratories of the firm at Everett, Mass.

The Callaway slasher, it is claimed, will produce a full width warp of any possible number of ends per inch and total number of ends from a minimum quantity of yarn and with a minimum amount of waste, time and cost. It requires no warping or beaming, taking its yarn supply from individual packages such as cones, tubes or cheeses, and delivering a sized warp ready for the loom with as little as 15 to 20 pounds of yarn. It is a versatile, multi-purpose machine, functioning equally well on cotton, synthetics, worsted, wool and silk yarn, and combinations of these.

Warp treatments may be evaluated by putting two or more treatments on the same warp at the same time and weaving them on the same loom at the same time. For example, on a warp of 3,000 ends, 1,000 ends can be treated with Compound A, another 1,000 with Compound B, another with Compound C, and weaving results tested without variables involved when different looms are used or when the tests are run at different times. This process can also be used to testing drying methods by weaving a



The new slasher being built by West Point Foundry and Machine Co. under license from Callaway Mills Co.

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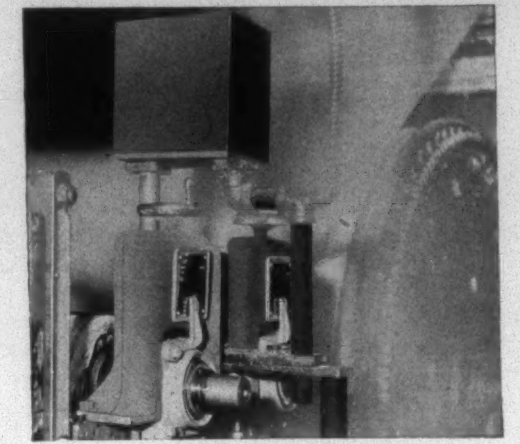

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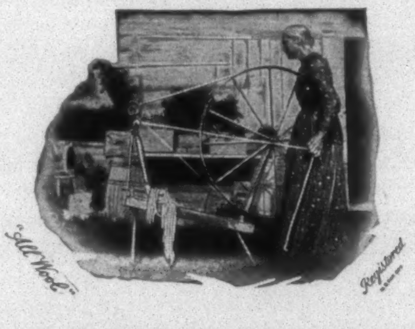

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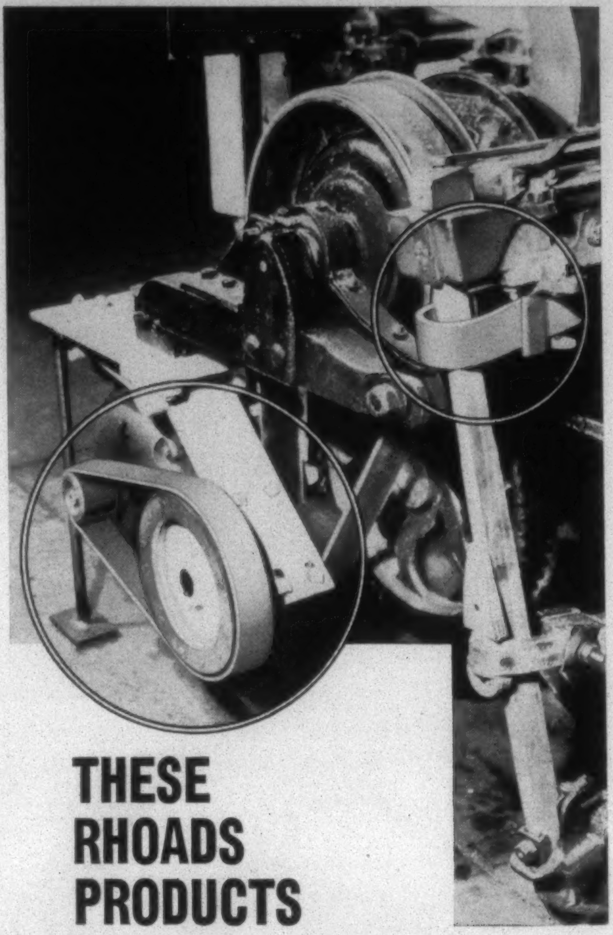

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warp, one-third of which has been dried by hot air, one-third by cylinder, and one-third by infra-red.

In addition to its use for organizations conducting research, the Callaway slasher will be of particular value to mills for slashing short-run styles and for making up samples for new styles, as well as to sales yarn mills who put their products into woven form for samples and for evaluation of weaving quality, the firm states. The machine operates entirely on electricity using a power supply of 220 volts, three-phase, 60 cycles, 60 amperes per line. A control panel provides for selection of any one type of drying or any combination of the different types of drying. An adjustable speed main drive regulates operating speeds from two yards per minute to maximum.

The drying chambers contain provision for hot air, cylinder, and infra-red drying, which may be utilized separately or in combination, selecting the sequence of drying desired. Both sides of the yarn are exposed to the infra-red radiants which are electrical conducting coated glass plates. There are two radiant drying chambers with a total heat capacity of 9.6 kilowatts equally divided.

The hot air drying uses fin-type electric heaters enclosed in a duct connected to the outlet of a centrifugal blower from where the hot air can be directed to any or all of the drying chambers. The infra-red radiants act as vanes to guide the air flow, and additional air heating is also obtained where radiants are in use.

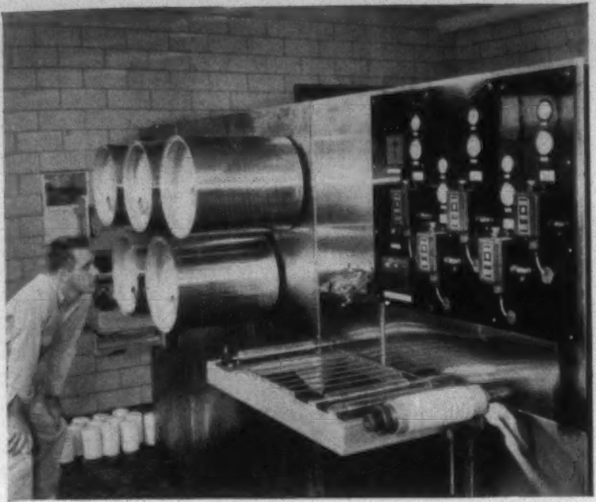
The cylinder chamber contains four positively driven 18-inch diameter, eight-inch face copper cylinders. Each cylinder is equipped with two strip heaters thermostatically controlled. The entire drying unit is enclosed in an asbestos type enclosure to minimize heat loss with side panels hinged to provide easy access to all working parts. All shafts are mounted in sealed type ball bearings, and cylinders and guide rolls are end mounted to facilitate threading.

The size box and rolls are mounted at the rear of the drying unit. There are two six-inch diameter, eight-inch face synthetic rubber covered squeeze rolls and one stainless steel immersion roll. A ten-quart stainless steel vat rests in a stainless steel tank filled with glycerin and heated by two thermostatically controlled immersion type electric heaters. The vat is easily removed to clean or change size formula, and the depth of immersion can be regulated by a hand crank which raises and lowers the entire tank and vat assembly. The squeeze rolls are mounted one over the other and driven with adjustable pitch V-belt sheaves which can be adjusted to vary tension between the drying unit and squeeze rolls. Squeeze pressure is controlled by a weight and lever.

Monsanto's Experimental Unit

Design and construction of a complete, experimental slasher for testing synthetic sizing agents has been accomplished by Monsanto Chemical Co. The stainless steel unit, part of an improved testing system developed by Monsanto, has been set up in the company's Merrimac Division textile laboratories at Everett, Mass.

Milton J. Scott, assistant director of research at Merrimac, said that technology has not kept pace with synthetic resin developments in the field of warp sizing. "One of the important reasons technology has lagged," he added, "is the need for better screening methods and evaluation techniques for prospective sizing agents. The design and construction



Frank Masterson, research chemist in Monsanto's Merrimac Division textile laboratories at Everett, Mass., checks the temperature on the drying cans of the new experimental slasher. The slasher was specially designed and constructed by Monsanto to provide adequate testing facilities for synthetic sizing agents.

of the new Monsanto experimental slasher is one step toward an improved system of testing whether a synthetic resin has any value as a warp size. The new slasher has a major role among preliminary screening aids, as well as in technical service to mills using Stymer S, Monsanto's chemical aid for sizing acetate warps. The final test, of course, is in the mill itself."

The experimental slasher in Merrimac's textile laboratory reproduces as closely as possible the model's counterpart in the mill. It is designed to afford great latitude in control of normal variables. The slasher includes a removable size box, immersion roll, squeeze rolls, five drying cans, lease rods, rake and take-up beam. Dry cans, rolls and other moving parts are connected through a stainless steel panel with the operating mechanism. Metal locker doors in the rear of the unit provide easy access to the parts.

Thermostatic controls maintain size temperatures in the size box at between 90° and 220° F. The immersion roll and bottom squeeze rolls are stainless steel. The upper squeeze roll is rubber covered. Gauges are attached for reading the variable air pressure. Individual controls run to each of the five drying cans. Gauges on each can indicate temperature; maximum temperature is 298° F.

Six lease rods separate the yarns. The slasher has a capacity of 300 yards at a speed of zero to 75 yards a minute with a stretch up to 20 per cent. Runs on the slasher are preceded by tests of tensile strength, elongation, hardness, flexibility or fold endurance, and moisture regained. Aqueous solutions are prepared for this purpose.

Synthetic sizings that meet these tests favorably are approved for further trial on the experimental slasher. Sized yarns treated with the tested material are examined for tensile strength, elongation and size content, and microscopically in cross section to assess penetration. Abrasion tests are run on a cohesion tester, single end yarn abrader and the dynamic heddle abrasion tester.

New Zealand's phormium industry seems on the verge of revival. Phorium, one of the few useful plants native to that country, is a source of hard fiber similar to sisal or abaca, and is commonly used in woolpacks matting, binder twine and lashing.

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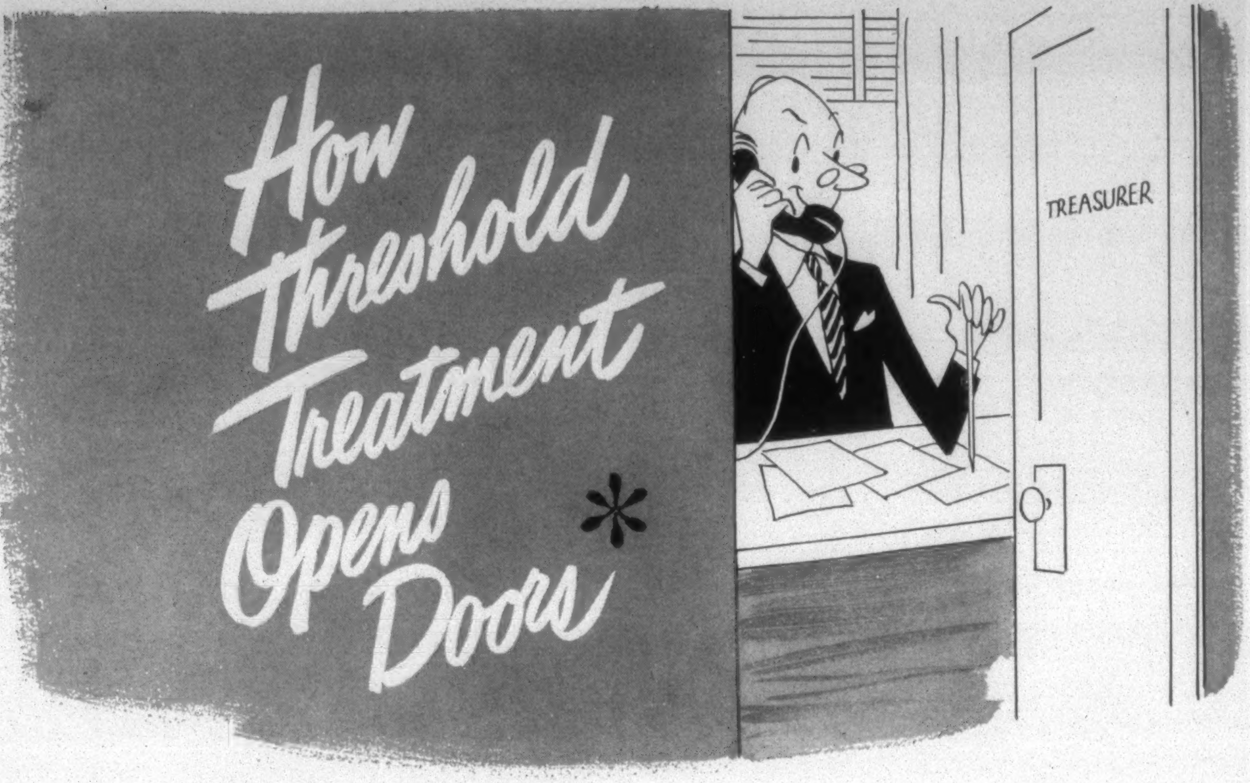
How Threshold Treatment Opens Doors*



THE TREASURER initialed the final draft of the yearly statement and phoned the Superintendent. "I thought you'd like to know," he said, "that the final figures show we had a big year. You fellows did a good job down there."

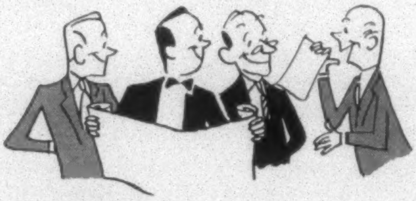
The Superintendent said, "Fine. Come down and see us some time and we'll show you how we do it."

FIFTEEN MINUTES later the Superintendent, the Dyer and the Chemist were grouped around the Treasurer. "Let's start here," the Superintendent suggested. "This is where the plant water supply gets Threshold Treatment with Calgon.†"

The Treasurer said, "That's good."

"It sure is," the Superintendent said. "A few parts per million of Calgon stop rust. New piping costs a lot more than Calgon."

"PIPING COSTS!" the Dyer broke in. "Have you ever tried to get clear colors with some of these dyes when there's a lot of iron in the water? Threshold Treatment with Calgon cuts iron content from 2 parts per million to less than .1 part. We get brighter shades and faster colors—and there's no expensive stripping and re-dyeing. That's where Calgon gives us real savings."



"SPEAKING OF SAVINGS," the Chemist spoke, "you might check our peroxide bill for last year. Calgon reduces iron pick-up, so we use less bleach. That's an extra dividend we get from our Calgon investment."

The Treasurer glanced at his watch. "This Calgon sure makes nice conversation but I'm afraid I'll have to get back. Anyway, I'm glad you fellows told me all about it."

"ALL?" the Superintendent said, "We're using Calgon in a dozen other applications where it is just as essential."

"And," chimed in the Chemist, "we haven't even mentioned Calgon's technical service. New problems keep coming up in this business—and Calgon, Inc. is right there with help when we need it."

* *to bigger profits, that is.*

†T. M. Reg. U. S. Pat. Off.

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Bleaching, Dyeing & Finishing

How Glycerine Works For The Textile Industry

By MILTON A. LESSER

WHEN glycerine was discovered 170 years ago by an obscure Swedish scientist, it was merely another chemical novelty, with no discernible practical applications. Nearly a century passed before anybody found any important industrial use for the product. Then suddenly, in 1862, the textile world adopted the foundling and put it to work.

The first major industrial use was in textile processing. It was in the Summer of 1862 that glycerine solved a difficult problem for the French producers of fine muslin fabrics. These craftsmen had found that in their mills they had to maintain high temperatures and high humidity in order to prevent the breaking of delicate threads. A Paris scientist told the textile men about glycerine's ability to absorb and retain moisture, and suggested that they try soaking the threads with this versatile fluid. The new glycerine treatment was first applied at Tarare, a southern hillside town which is still famous for its mousselines and velvets. The glycerine worked like a charm; the threads no longer dried out, and it was no longer necessary to keep the air of the mills heavy with the humidity of a tropical jungle. The glycerine process spread quickly through other French textile centers and then to the outside world.

Technicians in France, England and America bent their heads over the laboratory search for other applications of glycerine magic to textile manufacture, and were not long in finding new uses. Today millions of pounds of the versatile fluid are consumed yearly in many varied textile processes.

The value of glycerine still rests primarily on its hygroscopic action. In addition it is an important plasticizer and softening agent, and an excellent solvent. Its viscosity makes it a useful suspending medium for insoluble substances. It is also a good lubricant, with the usual advantage of being completely water soluble.

Machine Printing

Of the various uses for glycerine in the textile industry, none is more important than its employment in textile printing. This was brought out very definitely in a survey made by the American Association of Textile Chemists and Colorists at the request of the Glycerine Producers Association. In this survey, an indicative cross-sectional picture of glycerine utilization was obtained through questionnaires sent to a selected list of cotton and rayon dyeing, printing and finishing plants. About 140 responses were received. A statistical breakdown of the data thus obtained showed that approximately 90 per cent of the glycerine used by the responders went into printing and finishing. Of the 1,262,565 pounds of glycerine used by these 140 plants in one year, 1,062,710 pounds of glycerine went into printing preparations and 60,110 pounds were used for textile finishing. Substantial quantities of glycerine were also employed in sizing, dyeing and other applications.

Glycerine finds important roles in many fabric printing processes (e.g., direct, discharge, resist, screen) and is employed in the formulation of printing pastes for all classes of dyestuffs. Indicative is the observation to the effect that the principal ingredients of most, if not all vat print pastes are color, thickener, glycerine, alkali, and reducing agent. The function of glycerine in printing pastes has been well indicated by the fact that its hygroscopic properties enable the preparation of dyestuff pastes that have "excellent" workability. Its presence promotes fixation and when ageing conditions are on the dry side its moisture-retaining and absorbing action comes into effect. In addition, increased color value is obtained from the dyestuffs when suitable quantities of glycerine are employed. As an example of its use the following print paste formula for the alkali carbonate process for vat dyestuffs:

Dyestuff paste	20 parts
British gum thickening	51 "
Potassium carbonate	14 "
Formosul	10 "
Glycerine	5 "

Glycerine is also present in the reducing paste, which is used in conjunction with the above:

Glycerine	5 parts
Potassium carbonate	10 "
Formosul	5 "
British gum thickening	80 "

It has been similarly observed that, because of its hygroscopic properties, the addition of glycerine to print pastes will increase the color yield and uniformity of almost any color that is later to be acid or steam aged. As an example, occasionally Indigosol prints show poor color yield and unevenness after ageing. Such goods are then aged a second and even a third time. It has been found that the failure of the first ageing is due to a lack of sufficient moisture in the steam that is fed into the ager. In such instances, the addition of glycerine and a trace of copper sulfate to act as a catalyst will yield much fuller prints.

Of decided interest in connection with the use of glycerine is a recently reported study of some conditions affecting the application of vat colors. This study included a general consideration of both dyeing and printing with vat colors; printing being considered fundamentally as a localized dyeing. These investigations showed that reduction and solution occur in glycerine vehicles. It was also observed that the amount of dyeing which occurs is related to the amount of moisture present.

Glycerine plays an essential role in the formulation of the thickenings used in conjunction with vat dyes. The glycerine serves to insure that the fabric holds a suitable amount of moisture while passing through the ager. This is important because color development does not take place if the fabric is too dry at this stage. Illustrative of its employment is the following formula for a typical thickening, which has been found satisfactory in large-scale use:

British gum	5	oz.
Wheat starch	14	oz.
Potassium carbonate	1¾	lb.
Glycerine	¼	pt.
Olive oil	¼	pt.
Formosul	1¼	lb.
Water, to make	1	gal.

In making the printing paste itself, for a strong color, three parts of thickening are mixed with one part of vat dye paste. For a weak color, the strong color paste is diluted with the thickener as required. Another general formula for a thickening has been given more recently as follows:

Starch-tragacanth or starch-British gum	500-500	parts
Glycerine	50-70	"
Potassium or sodium carbonate	100-120	"
Formosul	100-120	"

The value of glycerine in the formulation of thickenings has been well indicated in a discussion of the machine and screen printing of Bemberg rayon. Here it was pointed out that one of the main difficulties encountered in printing Bemberg is breaking of the fiber. It is generally recognized that the higher the drying temperature after printing, the greater the tendency of the threads to break. It has been shown that, in this respect, the kind of thickening used may have a greater effect on Bemberg than on other rayon fibers. Thus, thickenings containing gum arabic, crystal gum, and similar products cause the fibers to break at the normal drying temperature (70° C.) On the other hand, thickenings of tragacanth or mixtures of equal parts of tragacanth and British gum to which at least 50 Gm. per liter of mineral oil or similar froth-preventing lubricant and 100 Gm. per liter of glycerine are added have no deleterious effects on the fibers. Half these quantities of oil and glycerine are sufficient to protect the fiber in screen printing. By using these glycerine-containing thickenings, the amount of dry substance is considerably reduced and the threads are given an elastic coating which reduces their tendency to break.

In addition to its extensive use in machine and screen printing pastes, glycerine also finds employment in discharge and resist printing methods. An interesting example of the latter is given in a patented procedure. Thus, to produce halftones, mat effects and the like, a resistant is applied onto the fabric with the aid of a screen or roller. The resistant may be underprinted or overprinted. It prevents the printing color from penetrating the textile or developing to the same extent as on untreated or non-reserved parts. A suitable resistant for such purposes consists of:

Albumin	50	Gm.
Titanium dioxide	160	"
Barium chloride	75	"
Sodium sulfate	50	"
Glycerine	50	"
Castor oil	30	"
Gum tragacanth, 6 per cent	260	"
Water	325	"

The addition of a discharging agent to the resistant produces white effects on colored backgrounds. A hyposulfite forms a suitable discharging agent.

Also worth noting is a rather recent report of an European method which uses sodium dichromate in printing with mordant dyes. Here it is stated that printing and dyeing of cotton textiles can be carried out in a single-bath process in which the dichromate, glycerine and a starch or tragacanth thickener are incorporated in an aqueous solution of the dye. The textile passes from this dye bath to steaming chamber. For example, a red dye bath may be made from:

Alizerin paste, 20 per cent	100	Gm.
Thickener	830	"
Sodium dichromate (1:1 in water)	30	"
Glycerine	40	"

A formula for a yellow dye bath calls for a mixture of:

Chromocitronine	25	Gm.
Water, warm	205	"
Sodium dichromate (1:1 in water)	30	"
Glycerine	40	"

Glycerine's properties makes it a frequent and valued addition to many types of textile finishes. In such preparations, it contributes to a better, fuller handle, to improved wearing qualities or to other desirable characteristics. Special finishes, such as flame retardant treatments, also take advantage of the qualities inherent in glycerine.

Textile Dyeing Machines For Piece Goods

By IRVING TEPLITZ

TEXTILE piece goods which cannot be subjected to tension during dyeing, are dyed in rope form on the dye beck. Fabrics dyed on dye becks include crepe fabrics, spun rayons, woolens, and some filament rayon cloths. Fabrics which can be given a certain amount of tension are dyed on the dye jig, the dye padder, or a combination of padder and jig, and more recently, with the advent of continuous dyeing methods, by padder in conjunction with a steamer unit or a Williams unit.

The jig, like many other textile machines, has undergone development. Originally, the jig was used for dyeing cottons under tension: one roller pulled the cloth off the other as the cloth unrolled. Today, the jig is used for dyeing rayons and acetates with a minimum of tension as these fibers are not as strong as cotton when wet. The jig is an open machine; the trend today is towards an enclosed machine. Basically, the dye jig, jigg, or jigger is a machine for dyeing cloth at full width; the cloth is unrolled from

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one roll, passed through a dyebath, and rolled up on another roll. One pass through the dyebath is an "end" or "run." The operation is economical as the dyebath is small in volume (100 gallons) and the dyeing process is inexpensive and results are level. A man can operate from two to three jigs. The diameter of the cloth roll is from two to three feet in diameter and holds about 500 pounds of cloth, about 1,500 yards. The jig is the ideal dyeing machine for short runs of cloth.

In the operation of the jig, the cloth passes through the dyebath in a few seconds during a run so that the actual dyeing process takes place on the cloth roll as the excess liquor runs out of the goods and falls back into the dyebath. As the wrapping of the cloth around the roll squeezes the dye solution out of the goods, the less tension there is on the goods permits quicker dye absorption and quicker dyeing. The number of runs should be in multiples of two, and additions of chemicals should also be in multiples of two; if the cloth is run but once through the dyebath, one end of the fabric would be dyed more deeply than the other.

The use of an end cloth aids in dyeing on the jig. The cloth roll is sewn onto an end cloth of from five to 15 yards in length; this end cloth is wetted and wrapped around the rubber roll form of the jig. The end cloth serves several purposes: it eliminates strain on the ends of the goods being processed, it slows up the period of drying and hence oxidation of vat dyed goods if the roll is stopped for a period of time, and it aids in eliminating a heavier dyed end of the cloth; it also insulates the cloth being processed if the rubber or metal roll form has a higher temperature (due to thermal transference of heat) than the dyebath. The seams of the cloth and the end cloth should be joined together by two or three rows of fine stitch to avoid strain on the cloth being processed. The end cloth should be of the same textile fiber as the cloth being dyed; if the end cloth is cotton and the cloth being dyed is acetate, the acetate dye will not be absorbed by the cotton and the end of the acetate cloth will be heavier dyed.

The gray goods must be carefully batched and run onto the jig roller so that the cloth will be free of wrinkles and creases as it runs on the jig. The presence of wrinkles and creases will cause a moire effect to appear on the goods, which will be permanent in the case of acetate and will give a crowsfeet appearance on other types of cloth. The expander bars are used to regulate the tension of the cloth as it moves on the jig, and helps remove the creases and wrinkles in the goods. The "tensionless jig" has motors on both the let-off and take-up rolls, and thus there is a nearly constant cloth speed for uniform dyeing results on rolls up to 34 inches in diameter. The difficulty in obtaining even tension and uniform dyeing is due to the changing diameters of the winding and unwinding rolls and their speeds; this in part is regulated by the electric circuit: as the roll builds up, the load on the motor increases and the speed of the motor drops; the voltage at the terminals of the motor reduces thus increasing the voltage of the unwinding motor with an increase in its speed. Some jigs run up to a speed of 100 yards per minute.

The action of the expanders is to regulate the tension on the cloth as it unwinds; there are also brakes on the jig rolls which exert control on the tension of the cloth. The rollers themselves should have a thermal capacity lower than the dyebath so that the ends of the cloth will not be hotter than the middle of the cloth and thus cause uneven shading of color. Formerly, the run was reversed by hand; now, there is an automatic stopping and reversing device which permits the operator to handle more jigs and also eliminates possible error of a wrong count of the number of ends the cloth has run.

The jig tank is made of stainless steel and is usually narrow and deep so as to give the cloth a long run through a small volume of dyebath. The tank has overflow pipes at the top and a plug at the bottom drain, which is operated externally by a foot pedal and lever.

In the open jig, the selvages tend to be cooler than the center of the roll during processing, and this can result in uneven removal of warp size, and uneven dyeing. In order to dye acetate fabrics with colors which will be fast to gas fumes, mainly blues, the enclosed jig has been introduced; this enclosed machine is also ideal for high temperature dyeing of nylon fabrics. The enclosed jig has windows to permit visual inspection and these are easily removable so that the jig can be loaded or unloaded by means of a chain hoist. The enclosed jig makes for a uniform temperature on the cloth roll throughout the dyeing cycle.

There are several types of jigs: constant speed single beam jig, single passage jig, totally immersion jig, and jigs in tandem for continuous open-width scouring of heavy cotton fabrics.

The jig can be used for scouring, desizing and dyeing of direct, after-treated, developed and vat colors on various fabrics. The jig is used in conjunction with the padder on light shades wherever possible. It has been found in the application of direct dyes that rayon warp streaks are minimized by padding the dyestuff, and then giving the cloth a salt rinse on the jig where necessary. On heavy shades or where a considerable amount of dyestuff must be put on the cloth, it is difficult to obtain level and full penetration of dyestuffs by use of the padder, hence the jig alone must be used. Pigment taffetas are padded and then scoured and dyed on either the dye beck or jig due to the tight selvages which will cause shadiness, if handled on jig alone. The padder can be used for desizing of warp size in combination with a jig scour and dyeing process.

Types of Jigs

The dye padder is a continuous dyeing machine—the cloth passes open width through a dye solution and then immediately through two squeeze-rolls which squeeze out the excess dye liquor. Occasionally, the three-roll padder is used for more effective squeeze or "nip." There are various ways of threading the cloth through the rolls so as to get effective "nip." The pressure exerted on the rolls may be five or more tons, usually by air pressure, with both sides perfectly controlled so that the pressure of the rolls will be even and the distribution of color exact. The speed of the padder is usually variable; the stainless steel dye pan or liquor box has necessary threading-up rolls. The advantages of the dye padder are fairly level dyeing, great speed and increased production which reduces costs, small dyebaths and less steam used; it requires little floor space and is relatively inexpensive to install. The disadvantages are that it is not good on heavy or dark shades, not good for acid dyeing, not easy to match shades or correct errors in dye, and for some crepes, too much tension is required. The

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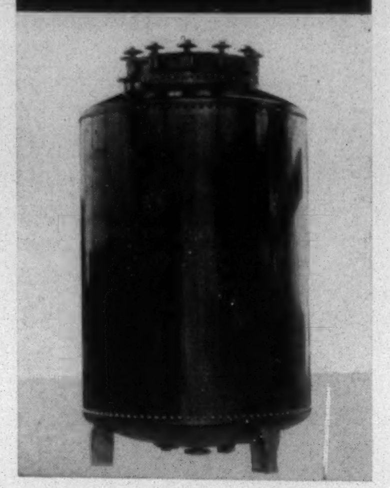

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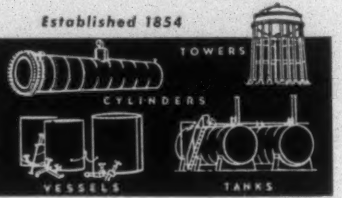

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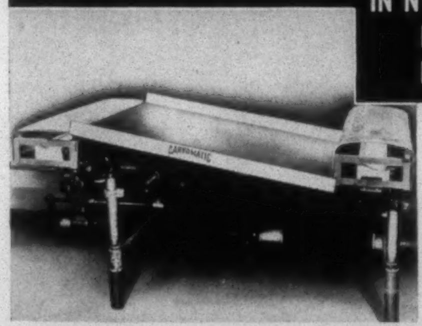

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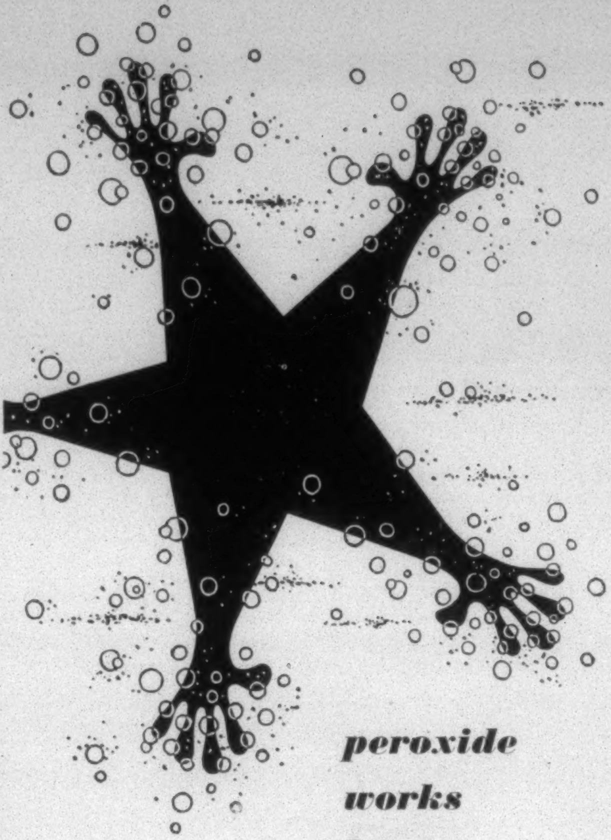

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padder should have a set of steam pipes in the pan or liquor box so as to permit the even maintenance of temperature of dyebaths.

Calco lists possible causes of shaded dyeings on piece goods at the padder as follows:

Uneven set on padders.

Pad rolls worn to a smaller diameter in the central portion or where fabric selvages usually run.

Pad rolls of uneven density, due to improper curing during their manufacture.

Non-uniform flow of dye over the cloth entering the nip.

Guide rolls shifted out of parallel with other rolls.

Guide rolls stuck in bearings and dragging, or not revolving.

Expanders not contacting cloth with uniform pressure across the width.

Non-uniform moisture content of cloth entering the padder.

Settling of dye dispersions in supply tank or padder pan.

Uneven winding up of cloth on the take-up shell.

Non-uniform removal of impurities from cloth preparatory to dyeing.

Uneven height of singer flames.

Cloth not protected from foam when it enters bath.

The amount of dye padded onto cloth depends not only upon the concentration of dyestuffs, but also upon the percentage pick-up, and the ratio of dye to water picked up. Preferential sorption of either dye or dye solvent during padding may cause (1) the padding solution to become progressively weaker and the shade of the padded cloth progressively lighter, or (2) solution to become stronger and the shade of the cloth heavier. To overcome shading in such cases, feed baths must have a different proportion of dye from the starting bath. In ideal padding, both solvent and solute (dye) would be taken up in proportion to their concentration in the solution. In jig dyeing, the cloth is given any number of ends or runs until the cloth has reached the proper shade and depth desired; however, in pad dyeing, the time of contact between cloth and dyebath is short so that more careful control of the factors affecting dyeing is needed. There are certain considerations to be followed in pad dyeing: dry cloth picks up more solution than wet cloth, wetting agents should be used to facilitate quick absorption of dyebath, the weight of cloth and tightness or looseness of construction has definite relation to the speed of the machine and the amount of pressure to be exerted by the rolls.

In naphthol dyeing, the substantive naphthols, which have affinity for the fiber, are dyed on the jig where salt can be used to exhaust the naphthol. The non-substantive naphthols are padded on, and it has been found that padding at high temperatures permits the use of the substantive naphthols, as substantivity is reduced to a minimum. These facts bring out some of the points regarding pad dyeing: that exhaustion, migration and other factors are not necessary for level dyeing as the application of even shades by mechanical means (of padding) can achieve the same result.

Vat dyeing was formerly done on the jigs. One of the difficulties of jig dyeing of vat colors is the possibility of oxidation of the ends of the cloth during the dyeing process, which also occurs in sulphur dyeing. For short runs, the jig is the most economical method of applying vat dyes to cottons and spun rayons after a padding application of the vat dyestuff. For long runs, the jig has been displaced by two methods of dyeing: pad-steam and Williams unit, both being continuous processes. The pad-steam and Williams unit has been used for other types of dyeing besides vats: direct, sulphur, naphthol, and on different types of fibers, and with successful results. As time goes on, it is possible that the jig may take a minor role in dyeing, being used for small lots and short runs of cloth, and the newer methods of padding followed by continuous machinery setups utilized to handle long runs of all types of dyeing on all types of fabrics.

Pad-Steam and Williams Methods

The pad-steam method of vat dyeing was developed by Du Pont and is based on the fact that the reduction of the vat color to the "leuco" on a fabric can be carried out in seconds at 212° F. in the absence of air. The vat color is padded on, the cloth is dried, cooled and then padded with caustic soda and sodium hydrosulphite and immediately passed through a steam chamber where the 212° F. reduction takes place. The goods are then oxidized, rinsed and washed, dried and made ready for shipment. The three-roll pad is used for padding the vat dye. The process of pad-steam is similar to the vat printing process and development. The steam chamber is the only new piece of equipment introduced to the trade in the pad-steam continuous dyeing method. When the caustic soda and sodium hydrosulphite are padded on the goods, salt and sodium formaldehyde sulphoxylate are added to prevent migration of dyestuff and contamination of solution. Soda ash, in place of caustic soda, also prevents migration of dyestuff.

The pad-steam method avoids the jig problems of migration of vat dyestuffs, of having combinations of dyes which have the same rate of exhaustion, and other dyeing problems. The complete pad-steam unit consisting of two pads, a hot flue dryer, a steam development unit and seven wash boxes, processes cloth at the rate of 125 yards per minute or 6,000 yards per hour (48,000 yards per eight hours) requiring four men as against the same production processed on 20-24 jigs with ten men for same period of time. The vat colors of the pad-steam method will be equal or better than the work done by the jig and in addition there is about a 40 per cent reduction in chemical cost and a saving in color of ten to 25 per cent.

The Williams unit is a new type machine which performs about the same type of work as does the steam chamber in the pad-steam method of dyeing vat colors. It, too, is applicable for sulphur dyes and direct colors; naphthol colors are also handled by the Williams unit, but the coupling process of naphthol dyeing takes place under cool conditions. The Williams unit has been used for scouring, desizing, caustic removal in mercerizing process, impregnation of finish as well as dyeing. The Williams unit seeks to accomplish its work with small baths, thus showing economy in operation. The Williams unit is another continuous and less expensive method of handling vat dyes as compared to jig dyeing which is non-continuous and needs more operators per yardage handled.

Du Pont also developed the multi-lap method of continuous processing of vat dyes; however, it has not had the development of the pad-steam method.

The introduction of the pad-steam and Williams units makes for a demarcation between those plants which have this equipment and those which have jigs and padders to do vat dyes. In the long run, the plants with the newer methods will have the business and will be in a position to operate at cheaper prices offered to customers. It is estimated that 15,000 yards is the minimum run needed for economi-

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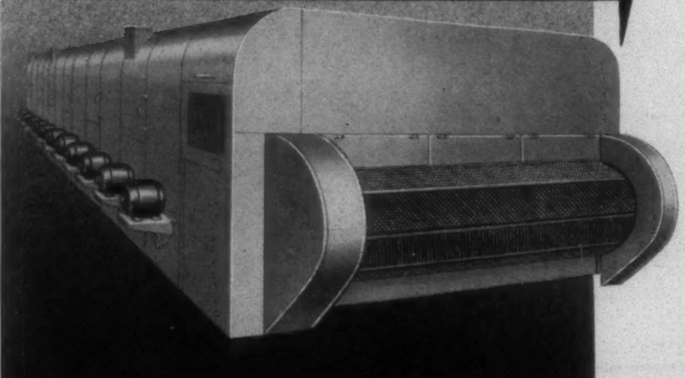

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cal dyeing of vat colors by continuous methods; this means about 200 pieces of a color. If the converter or customer ordering the dyeing can consolidate some of the orders on colors, he will be able to take advantage of the continuous methods. The price comparison might be compared to the difference between roller printing and screen printing. There are differences in the type of work turned out between roller and screen printing which makes the price differences reasonable, whereas there is no such difference between jig and continuous process vat dyeing.

Meeting Consumers' Needs In Textiles

By W. E. COUGHLIN, Textile Laboratory Director, Good Housekeeping Institute

MANY of the improvements which consumers desire in textile products do not involve studies on the part of fundamental research workers. As an example, better informative labeling and the use of more serviceable trimmings on garments concern other sections of the industry than that of the research worker. The consumers' needs and desires in textiles, which I will mention today will, therefore, be confined to those subjects which might conceivably result in studies at the research level.

My source of information consists largely of correspondence with readers of our magazine, who write to us concerning their problems, and conversation with the many hundreds of people who visit Good Housekeeping Institute. Our textile laboratory is constantly studying new textile products for editorial purposes and we also investigate all the items which are used on our fashion pages. In addition to these investigations, we check the service properties of our advertised products, and these run the gamut from disposable diapers through decorative fabrics and all sorts of wearing apparel. We are in a position, therefore, to find out how nearly the industry is supplying consumers' needs in textiles.

Women are extremely interested in any development which lowers the cost of upkeep and simplifies the care of their textiles. For example, although the magic name of nylon may be responsible for much of the interest in men's shirts made of that fiber, the women's interest is primarily in the fact that these shirts launder easily and in many instances are reported to require no ironing. Women always express great interest in any finish which tends to make fabrics more soil resistant and to allow them to be cleaned easily. Especially is this true in the slip cover field, where great interest is expressed in resin finishes designed to make the fabric resistant to soiling.

The improvement of dimensional stability in many fabrics is a very desirable goal. Women desire such products and will pay a premium for them. Especially is this true in connection with sheer glass curtain fabrics. Sheer curtain materials which can be so stabilized as not to require the services of experts in cleansing are what every woman desires. Their experiences with curtains which stretched or shrank, depending upon the temperature and humidity conditions of the room, make them very receptive to glass curtain fabrics which will not change in dimensions during hanging. Naturally, they expect these curtains to launder satisfactorily without noticeable alteration in dimensions, provided that ordinary care is observed in the process. Great strides have been made in the stabilization of fabrics in the last few years, either through perfecting blends of different fibers, by heat setting techniques with thermo-plastic yarns and by the application of resins. Improved stabilization work on sheer materials is, however, a desirable goal. It is probably trite to state that women want fabrics with greater wrinkle recovery, and although much progress has been made in this direction recently, especially with cottons, there is still room for improvement both from the standpoint of application technique and from the standpoint of performance in use. Special finishes for this purpose which are nonchlorine absorptive apparently are not available at the present time, but it would be desirable to have such a type of finish.

Better Dyes Desired

For each fabric that is developed there are usually several different colors used for dyeing or printing the material, and since each color is susceptible to several different types of fading agencies, we find that there are more problems with colors on textiles than on any other component of the fabric. Certainly many items of clothing as well as decorative fabrics are discarded primarily because of the failure of colors. Although much fundamental research has been carried out by the major dyestuff manufacturers and by finishers on the improvement of colors and techniques, it is obvious that there is still need for further studies of the fundamental mechanisms of dyeing, involving improved penetration of the dyestuff and better methods of application. The number of fabrics sold today which do not have either adequate light or wash fastness is very high, and any discovery which would contribute toward better fastness in dyes would be very welcome. While on the subject of dyes, it is noted that many people have trouble with the lack of wash fastness in underwear fabrics, such as slips. The failure of these colors is usually traced to faulty pad dyeing methods. Since this method of dyeing fails more often than the conventional to produce the desired wash fastness, it would seem that better techniques of application should be developed in this field.

Yarn-Dyed Taffetas

Many of our readers have complained about the objectionable water spotting and poor cleansing properties of many yarn-dyed viscose taffetas. This is a type of fabric that the drycleaning industry has complained about also, inasmuch as water soluble stains cannot be removed from the material satisfactorily. The water soluble sizing used in the fabric is disturbed by contact with water and as a result the fabric cannot be dampened during ironing, water

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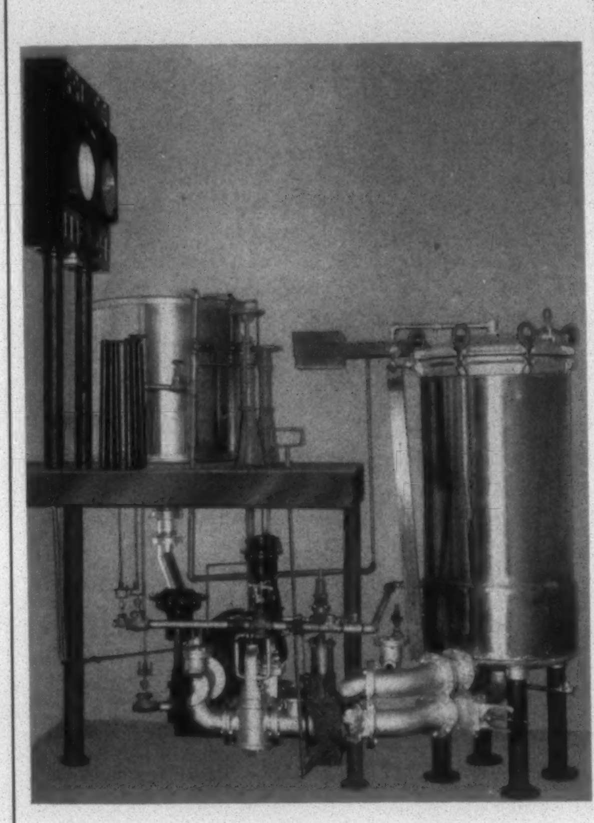

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soluble stains cannot be removed, and the material is ruined if a few drops of rain fall upon it. Certainly a sizing material which can withstand water should be developed for this type of fabric, or it should be removed from the market.

Elasticized fabrics used in many under-garments have been a source of some trouble, due to the fact that they frequently lose all of their elasticity long before the non-elasticized parts of the garment are worn out. Another minor problem which has arisen with elasticized yarns is the fact that the best anti-oxident used frequently develops a pink color in use, thereby causing a discoloration of the entire fabric. The development of a good anti-oxidant which would not discolor in use would be a desirable achievement in this field.

Although there is a great need for methods of predicting the performance in use of fabrics which are to be exposed to abrasion, the different methods for measuring this important property have been frequently questioned by many people in the trade. I remember of studying a comprehensive report on abrasion resistance of fabrics prepared by Walter Hamburger several years ago. This study which involved careful analysis of the effect of twist and the frequency with which a given filament appeared at the same position on the surface of the yarn, indicated a type of approach to the study of this problem which could probably be extended with good results. It is apparent that new study techniques and possibly better abrasion machines would result from a continued study of this problem.

Intimately connected with the development of improved textile products is the need for publicizing the benefits to be expected through their use. Too often the research worker "hides his light under a bushel," and as a result the benefits of his research are not passed on to those sections of the industry which can put them into use. It is useless to develop new and better finishes unless the garment manufacturer knows that the product is worth paying a small premium for. Unfortunately too many manufacturers of fabrics are willing to figuratively spend dollars on the improvement of the appearance of a fabric but hesitate to spend pennies for the desirable improvement of basic service qualities. An example at point is the statement by many converters that their customers will not spend two or three cents per yard extra for a fume fading inhibitor, even though these two cents per yard would make all the difference in the world between a fabric giving satisfactory use and not.

Manufacturers today are, in the last analysis, selling mainly consumer satisfaction and it is up to us to supply the industry with the information they need to meet the demands for this consumer satisfaction.

Abstract of paper presented last Fall before the annual meeting of the Textile Research Institute.

A.A.T.C.C. Units To Hold Meetings

Southern sections of the American Association of Textile Chemists and Colorists have scheduled a number of meetings for the remaining months of this year; a summary of these events follows:

Piedmont Section: Will hold its Spring meeting April 1 at the Robert E. Lee Hotel in Winston-Salem, N. C. The technical meeting will begin at 3 p. m. and the student chapter of North Carolina State College will have charge of the program. Several papers will be presented by student members from North Carolina State College and Clemson College. The papers will be judged by Dr. Harley Y. Jennings of Dan River Mills, Danville, Va., and prizes will be awarded by Arthur Thompson of the Ciba Co., Charlotte, N. C. The second part of the technical meeting will be featured by a paper presented by W. C. Peurifoy of Hoover Hosiery Mills, Concord, N. C., on "Stripping of Nylon." The event will be concluded with a banquet and entertainment, starting at 7 p. m.

The Piedmont Section also plans a gathering at Myrtle Beach, S. C., June 30-July 1 (annual outing, Ocean Forest Hotel).

Southeastern Section: Has arranged meetings May 27 at Columbus, Ga.,, Sept. 23 at LaGrange, Ga., and Dec. 9 at Atlanta, Ga.

South Central Section: Has scheduled a meeting at the Hotel Patten, Chattanooga, Tenn., May 20, and plans to have its Summer outing at Chattanooga (Read House, Hotel Patten and Chattanooga Country Club) Aug. 18-19.

Other events of interest to chemists and colorists include: National Plastics Exposition, Navy Pier, Chicago, Ill., March 28-31; textile division of the American Institute of Electrical Engineers at the A. French Textile School, Georgia School of Technology, Atlanta, April 13-14; American Textile Machinery Exhibition at the Atlantic City (N. J.) Auditorium May 8-12; annual meeting and exhibit of testing apparatus, American Society for Testing Materials, Atlantic City, June 26-30; National Chemical Exposition, Chicago Coliseum, Sept. 5-9; annual convention of the A.A.T.C.C. at Portsmouth, N. H., Sept. 28-30; and annual meeting of the Textile Research Institute, Waldorf-Astoria Hotel, New York City, Nov. 16-17.

A.S.T.M. Committee D-13 Holds Symposium

A symposium on "The Dimensional Stability and Shrinkproofing of Textiles" with three formal papers as the basis of discussion, a luncheon in honor of the retiring committee chairman, Prof. H. J. Ball, and the award of the Harold DeWitt Smith Memorial Medal, featured the three-day series of meetings of the American Society for Testing Materials Committee D-13 on Textile Materials held March 15-17 at the Park Sheraton Hotel, New York City.

On Thursday afternoon, March 16, the first award of the Harold DeWitt Smith Memorial Medal was presented to Dr. Herbert F. Schiefer, physicist at the National Bureau of Standards. At the ceremony honoring Dr. Schiefer, Richard T. Kropf, vice-president and director of research, Belding Heminway Co., addressed the gathering on "The Medalist—The Man." W. D. Appel, chief, textiles section, National Bureau of Standards, spoke on "The Medalist—The Scientist." Presentation of the citation and medal was made by Prof. H. J. Ball, retiring chairman of Committee D-13. This medal has been made possible through the generosity of the Fabric Research Laboratories in Boston and is to be given annually, or at longer intervals, by Committee D-13 as a testimonial to the memory of Dr. Harold DeWitt Smith. It is to be given for out-standing achievement in, or contribution to, the science of the utilization of textile fibers and structures, or methods for the evaluation of their properties.

Immediately following the medal award ceremony a symposium was held which included the presentation of the following technical papers by outstanding authorities: "The Dimensional Stability and Shrink-proofing of Cottons," by E. C. Pfeffer, Cluett Peabody, Troy, N. Y.; "The Dimensional Stability and Shrink-proofing of Woolens," by W. von Bergen and Claude Clutz, Forstmann Woolen Mills; and "The Dimensional Stability and Shrink-proofing of Rayons," by J. A. Woodruff, American Viscose Corp. It is the policy of Committee D-13 to have prominent technologists discuss timely subjects at the special papers session during the Spring and Fall meetings of the committee. Each of the papers dealing with cottons, woolens and rayons provides latest information on successful practices.

Organized in 1914, A.S.T.M. Committee D-13 on Textile Materials has made many notable contributions in its work involving standardization and research. During this period several outstanding men have served as chairman, but Prof. H. J. Ball professor of textile engineering, Lowell (Mass.) Textile Institute, has a very notable record, having been chairman since 1930. He is retiring from this office this year and a luncheon was held March 15, in his honor, after 20 years of significant service.

A past president of the society, Professor Ball has served A.S.T.M. and other technical and scientific organizations in other important capacities. As a testimonial to the esteem of his associates and many friends in Committee D-13 Professor Ball was presented with an appropriate scroll and a gift by Dr. Frederic Bonnet, American Viscose Corp. Preceding the presentation of the scroll, Giles E. Hopkins, technical director of the Wool Bureau, New York, addressed the gathering describing some of the outstanding services rendered by Professor Ball to D-13 and to the society.

New Finish Gives Warmth Minus Weight

Roger Milliken, head of Deering, Milliken & Co., Inc., recently announced that his firm is ready to begin commercial production on a new method of finishing textiles of all kinds to provide increased warmth without weight. And conversely, many fabrics will be made cooler for Summer apparel, it was claimed.

These results are obtained by consideration of the fact that as much as 85 per cent of the body's heat is lost by radiation in cold weather. The new fabric, embodying metallic particles (ground up aluminum mixed with a vinylite plastic), reflects this heat back to the body. When the heat outside the body is greater, as in Summer or in a hot room, it is reflected away, while the porosity, which is retained, permits perspiration conduction and convection to function in cooling the body.

The idea was developed by H. J. Rand & Associates of Cleveland, Ohio, and about a year ago Deering, Milliken acquired a financial interest in the application and shared in the problems which had to be solved before the process could be used commercially.

English Firm May Acquire Arnold, Hoffman

Imperial Chemical Industries, Ltd., of England, has made an offer to acquire a controlling interest in Arnold, Hoffman & Co., Inc., chemical manufacturer of Providence, R. I.

If the offer is accepted it will enable Imperial to enter into the manufacture of dyestuffs and other synthetic chemical products in the United States as well as to provide a medium through which dyestuffs and auxiliary products manufactured by Imperial can be marketed in this country. Arnold, Hoffman & Co., Inc., has an issued capital of approximately $930,000, consisting of approximately 93,000 common shares of a par value of $10, and the price offered by Imperial is $55 per share. The American corporation operates three plants, at Charlotte, N. C., Cincinatti, Ohio, and Dighton, Mass., and is engaged in the manufacture of a variety of chemical products including dyestuffs, plasticisers, printing gums, sulphonated oils, synthetic resins, and wetting agents.

If this offer is accepted, the necessary finance will be provided by bank loan in New York and the transaction therefore will not involve the use of any of Britain's dollar resources.

INTERIOR VIEW OF THE DYE HOUSE ADDITION of some 10,000 square feet at the print works plant of Cone Finishing Co., Greensboro, N. C. The work was completed by C. M. Guest and Sons, textile construction firm of Anderson, S. C., and Greensboro.

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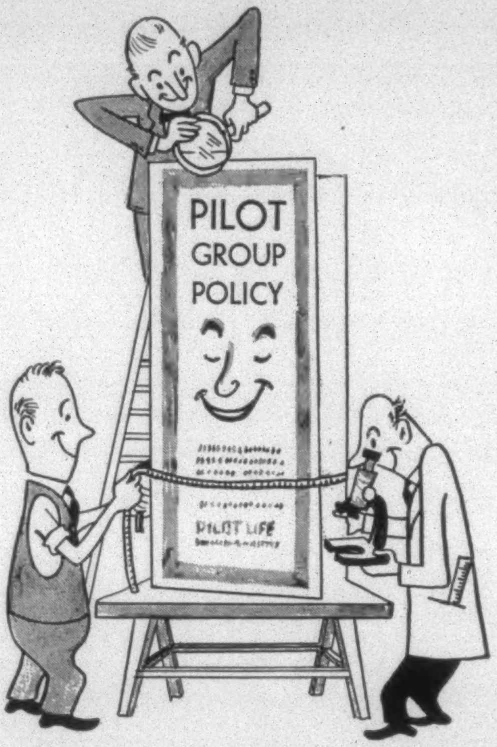

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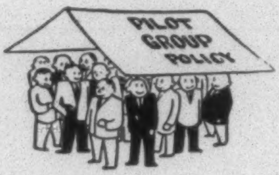

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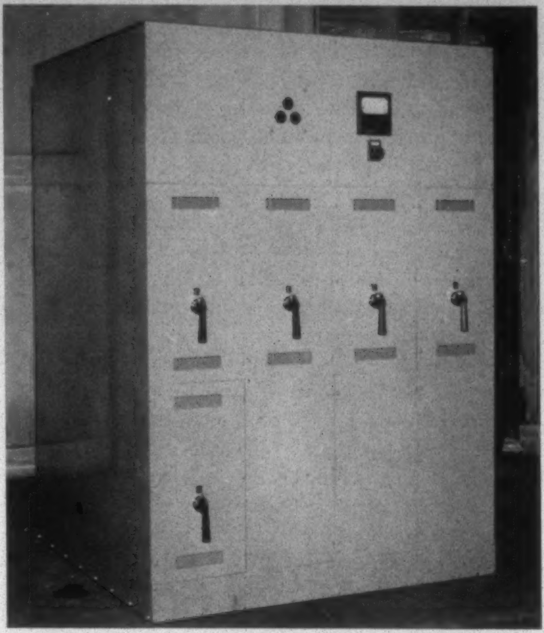

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Your Village And Its Water Heater Load

By JAMES T. MEADOR

AS a great many of you already realize these villages are rapidly becoming real problems with the installations of such improvements as bath rooms and electric water heaters, as well as, in some cases, the additional loads of electric ranges scattered at random which have been made easily available to the tenants by virtue of generous stocks and low cash down terms. But, these two items are not all of the load that will be added to your lines, with the many other appliances also available, even including the latest "wonder-child," none other than television, which we are beginning to see quite frequently in the village homes.

All of these factors combined together point toward a new trend in village electrical distribution and service, which might be summed up as a combination of these following factors:

1. More accurate metering, current by-passing, etc.
2. More appropriate rates.
3. Redistribution of village transformers.
4. Increasing the sizes of supply transformers.
5. Rearranging and enlarging village distribution system, including maintenance and repair of the present system.
6. Right of way clearances for the lines.
7. An alternate possibility of letting your local power company take over and supply your village.

More Accurate Metering

This particular item can come in for a lot of discussion as well as abuse when you consider that there have been found so many times that some of the tenants have been getting current for their many additional appliances and gadgets by means of by-pass circuits ahead of and around the meters, leaving only the regular house circuits to go through the meters with the result that their electric bill is about the same as it has always been. However, we should all be very grateful that there are fewer and fewer of these people as time goes on—even some villages don't have a single family of this type.

The really important part of this business of accurate metering is *accurate metering*. Some careful mill operators see to it that every meter in their villages is tested at regular intervals (some two years apart, some more) by someone who is qualified and has the proper tools and equipment to do such work. Usually, someone connected with your local power company can arrange to either do it himself, or have it done. If you do not have anyone available near you for this service, we will be glad to give you some names, if only you will drop a line to P. O. Box 1225, Charlotte 1, N. C., care TEXTILE BULLETIN, telling us your problems.

When you eliminate the "by-passing" (we don't call it by its real name), and get an accurate registration of current used on your watt-hour meters, you will begin to see some interesting results.

More Appropriate Rates

Now, this item is one which easily can take in a lot of territory in the arguments pro and con, but nevertheless it falls right in step with our first item, of *accurate metering*. For with such metering you will be able to directly determine the amount of electric power being consumed by your village, which, when its cost is calculated and added to the expense of either, or both, new construction and maintenance and repair, plus your interest on the investment, as well as our ever-present burden, taxes, will give you a clear picture of the situation, from which you can get an idea about what charges per kilowatt-hour to make. All revolving around the factor of accurate metering as a basis, you see.

Redistribution of Village Transformers

This particular item is usually the target of a lot of different opinions among utility engineers, linemen, etc., in the usual residential sections. However, when considered in the light of the average mill village where electric water heaters are installed, some other interesting factors become of enough importance to deserve some study.

Generally, in an average residential section, where ranges and water heaters are installed, the distribution transformers are installed on a basis of 1.5 kilowatts per house of about five rooms, average size, which works out very well, as there usually is a wide variation in the times when the various home loads hit the line. That is, some families do their cooking early, some late, and some others just any time in between, and it's the same way with their bathing, which directly affects the water heaters, as their load comes on when the water is drawn for the baths. All of which gives the average residential load a wide spread, on an average, that tends to keep down the maximum demand or peak.

But our cotton mill villages are of a separate sort of character, and for good reasons, too. One of these reasons is that, of a necessity, the ranges are on in most of the houses all at the same time, as working hours of the mill call for all the hands to be having their meals at the same time, approximately, which in turn raises a peak on the electric current demand, which requires transformer capacity enough to supply all houses attached to it at the same time.

The other reason, which also is very practical, and a "holder-on" to a good old American custom, and that is, the *Saturday night bath*. This, we have found, really does push up the demand on water heater current requirements.

Where some mills are installing capacity in transformers and wiring for *water heaters* and *ranges* with a ratio of from two to three kilowatts per service or per house, with very satisfactory results, other mills are installing capacity for water heaters only, plus a few small appliances, with a ratio of approximately two kilowatts each. Thus, if you were generously supplied with small transformers in your village distribution system, you could get good voltage and service by supplying one house with range and water heater, etc., from a single three KVA transformer. On the other hand you might supply two houses with water heaters only. Also, a five KVA transformer would supply two homes with both ranges and water heaters, or three homes with water heaters only.

There is also another important consideration to take into account when you go to relocate your distribution transformers in proportion to the load, and that is: *your own experience* in your own village. That is the principal criterion to guide your judgment.

Increasing Supply Transformers

By supply transformers, we mean those transformers which are required to step up the usual mill power voltage of 550 volts to 2,200 volts for the village distribution system. The required rating of these depends directly on the maximum peak demand over a short period of time, so that they may carry this maximum demand load without burning out, and should be based upon the tested load of the existing bank (if now becoming too small) plus an estimated increase per house or service of enough kilowatts to approximately cover the added load, which will provide for the fluctuating demand that ever be present as some heaters cut off or on as their thermostats call for current. Here again, *your own experience* is "king-pin."

Rearranging and Repairing System

The actual part of rearranging the average mill village for this increased load usually involves an increase in the size of the primary wiring in the secondary, or 110/220-volt, system, adding a third wire to a service drop, etc. However, we have seen very few villages where the system was kept up in conditions of good maintenance—such as cross-arms, insulators, screw-knobs on house services all pulled loose, etc., and last, but by no means least, the poles themselves.

So, in considering the installation of appliance capacity in your village electrical distribution system involves a lot of details and factors, of which the next item is usually a considerable one.

Right of Way Clearances for the Lines

Of course, it follows that if you own your village, you also own the rights of way for your pole lines. We don't mean that, but we do mean clearance by means of tree trimming along the lines and around the transformer and service branch poles. This is a big job, and sometimes takes as much time and labor as the main job of repairing or rearrangement of the system as outlined above. Your linemen should keep in mind the fact that trees, although cut partially down, will grow right on back, which calls for a continued program of trimming.

Several mills who have experienced some difficulty with their village electrical systems have been successful in negotiating various kinds of arrangements with their local power companies to take over the whole village system, completely, on down through their own meters. However, this is an individual problem for each of you, and is one upon which you should work to your own best interests.

We have found that in three villages there has been such a demand for electric range services that something is going to have to be done, and done right soon, with the coming Summer season when the demand is more prevalent for electrical cooking facilities, which means more electric ranges, in fact, nearly one range per house. Already there are several new range installations in these villages with the usual consequences of troubles with everything using electricity, such as radios won't play when the range is turned on, and the refrigerator won't run either, and the lights go dim, etc., etc., on and on. You all know how it is.

Well, in an effort to get something worked out in this connection, we have contacted several utility engineers who have had a lot of experience with such problems as are specifically present in mill villages, the first and most important of which is that of demand of the range load, such as in a village where the mill is operated on three shifts, which might put one-third of all the ranges in the village to cooking at one time during the week, with water heater and refrigerator loads coming in for more or less secondary consideration.

We find that the average load demand of an average electric range is 4.4 KW, which with a small additional demand allowance for water heaters and miscellaneous appliances, might bring the average house demand up to as much as 5.0 KW each, and this means a five KVA transformer *per house* if you have such small transformers on hand. But, you'll get some relief from this if you will use larger transformers, for this is where your *diversity factor* comes into this business, such as you can see by the following table:

5	KVA transformer....	1 range service
7½	KVA transformer....	2 range services
10	KVA transformer....	3 to 4 range services
15	KVA transformer....	4 to 6 range services
25	KVA transformer....	10 to 12 range services

However, if you still have mostly small transformers now in use in your village, you can still realize some benefit in their use by *paralleling* in connections, such as paralleling two five KVA transformers to give you, in effect, ten KVA of capacity to accommodate several more range services than these small transformers by themselves.

Such an installation will call for something else beside more transformation, too, you'll find, in order to avoid such excessive voltage drop that you would defeat your purpose. That is the ever-present factor of heavier conductors—larger copper wire.

Parleys On Electrical Application Slated

The textile division of the American Institute of Electrical Engineers will sponsor a Conference on Electrical Application for the Textile Industry April 13-14 at the Georgia Institute of Technology, Atlanta, in conjunction with the engineering extension division of the school. Papers to be presented during the two-day event include "The Use and Misuse of Electrical Equipment in Textile Mills" by Swaffield Cowan of Factory Insurance Association, Charlotte, N. C.; "Packaged Drives in the Textile Industry" by W. H. Behnke of Reliance Electric & Engineering Co., Cleveland, Ohio; "Connecting Power Wiring," symposium and com-

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ments from the field, led by Dan McConnell of Cone Mills Corp., Greensboro, N. C.; "Standardization of Range Drives for Textile Finishing" by R. R. Lang of General Electric Co., Schenectady, N. Y.; "A Completely Air Conditioned Mill" by H. S. Colbath of Bibb Mfg. Co., Macon, Ga.; "Forty Years of Textile Lighting" by Frank E. Keener of Decatur, Ga.; "Electronics in the Textile Industry" by A. T. Bacheler of Westinghouse Electric Corp., East Pittsburg, Pa.; "The Hysteresis Yarn Tension Device" by W. L. Butler and R. J. DeMartini, both of General Electric Co., Schenectady; and "Slasher Drives Up-To-Date" by J. G. Stephenson of Westinghouse Electric Corp., Atlanta, Ga.

A second conference, to be held April 27, will be sponsored by the institute's textile division at the Sheraton-Biltmore Hotel, Providence, R. I., under the direction of Mr. DeMartini. The program for the New England conference follows: "Recommended Good Practice for Selecting and Installing Electrical Equipment in Textile Mills," by Swaffield Cowan or W. M. Jones, Hartford Conn., Factory Insurance Association; movie on "How Fires Start in Industry" by C. F. Hedlund, Associated Fire Insurance Companies, Boston; "Electronics in the Textile Industry" by L. T. Jester, General Electric Co., Boston; "Applications of Motors and Control to Textile Finishing," speaker to be selected. An inspection trip is in prospect for the afternoon. If this does not materialize then a paper session, drawn from the Atlanta meeting, will be held.

Brookshire Scheduled For Three Addresses

"Materials Handling" will be the subject of an address by S. R. Brookshire of the Engineering Sales Co., Charlotte, N. C., before the Annual Safety School at N. C. State College, Raleigh, N. C., on March 22. Mr. Brookshire will also speak on this subject before the A.S.M.E. in Winston-Salem, N. C., April 21, and before the textile section, North Carolina Division of the National Safety Council, in Charlotte on May 4.

A.S.M.E. Textile Unit To Expand Activities

A long-range expansion of activities is being planned by the textile division of the American Society of Mechanical Engineers. As an initial step in this direction W. Arthur Smith, Jr., chairman of the textile division, recently announced formation of an executive council for the section. The new group will aid in planning a program for the Sept. 19-21 meeting of the society in Worcester, Mass., and further meetings in other sections of the country at later dates.

Members of the newly-formed executive council are: H. W. Ball, chief engineer, Foster Machine Co., Westfield, Mass.; Charles C. Bell, director of research, Universal Winding Co., Providence, R. I.; H. M. Catlin, manufacturing engineering manager, Bigelow-Sanford Carpet Co., Thompsonville, Conn.; Lindsay Dexter, assistant treasurer, Pepperell Mfg. Co., Boston; F. M. Fitzgerald, director of research, Draper Corp., Hopedale, Mass.; R. M. Jones, executive engineer, Saco-Lowell Shops, Biddeford, Me.; J. J. McElroy, general manager, Maverick Mills, Boston; Frank Morrill, chief engineer, James Hunter Machine Co., North Adams, Mass.; N. M. Mitchell, president, Barnes Textile Associates, Inc., Boston; Albert Palmer, vice-president and director of engineering, Crompton & Knowles Loom Works, Worcester, Mass.. C. E. Parsons, vice-president, Chicopee Mfg. Corp. of New Hampshire, Manchester, N. H.; L. A. Runton, manager, engineering department, M. T. Stevens Co., North Andover, Mass., and C. E. Rydman, research engineer, Bachmann-Uxbridge Worsted Corp., Uxbridge, Mass. Officers of the textile division are Mr. Smith, R. O. Palmer, Palmer Research, Shrewsbury, Mass., vice-chairman; F. D. Synder, Westinghouse Electric Corp., secretary.

Publish Text On Plant Maintenance Show

Publication of the text of the most comprehensive discussion of problems of plant maintenance ever undertaken was announced recently by Clapp & Poliak, Inc., the management of the Plant Maintenance Show which was held in Cleveland, Ohio, in January. The two-volume text, *Techniques of Plant Maintenance—1950,* are the proceedings of the first Plant Maintenance Conference held concurrently with the show.

Thirty outstanding experts in various fields of maintenance led the conference and about 8,000 executives concerned with plant maintenance attended. The two volumes comprise 278 pages, 8½ by 11 inches, and include 47 pages of tables, diagrams, illustrations, graphs and charts. Five hundred and fifty-four questions submitted by the audience are answered in the second volume. The books are available from Clapp & Poliak, Inc., 341 Madison Ave., New York 17, N. Y. Price for both, postpaid, is two dollars.

Subjects covered include maintenance organization and principles; maintenance costs and budgeting; selection and upkeep of lighting equipment; upkeep of motors, controls and distribution equipment; use of electrical instruments in maintenance; upkeep of floors, walls and roofs; relationship of lighting and color to production; sanitation and housekeeping; lubrication; application of service equipment; protection of plant and worker, and the importance of maintenance to safety.

I.E.S. Reports On Lighting For Wool Mills

"Lighting for Woolen and Worsted Textile Mills" is the title of a new report by the Illuminating Engineering Society, whose committee on this subject has just completed a detailed study of the lighting problem in this field. The project was one of the society's lighting study projects for industry which are carried on with the co-operation, where possible, of representatives of the field or industry under consideration. In this study 17 New England woolen and worsted mills participated, serving as laboratories for committee representatives.

Comprising 12 pages and cover, the report describes and illustrates the various operations from wool sorting through the finished cloth, recommending proper levels of illumination in each correlated with considerations of flexibility, installation, maintenance and production records. The resulting report serves as a complete guide to illumination in woolen mills and is of particular value to maintenance departments, utility company lighting departments, manufacturers of industrial lighting equipment and others. Single copies are available at 50 cents; quantity prices upon application to Publications Office, Illuminating Engineering Society, 51 Madison Ave., New York 10, N. Y.

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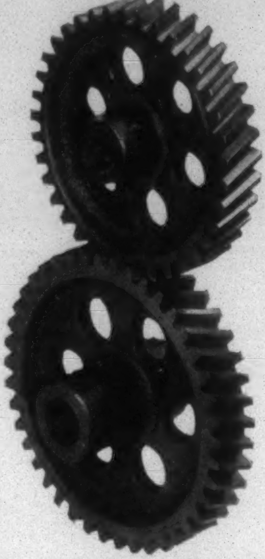

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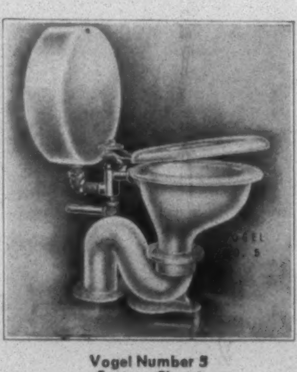

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Promotions, Resignations, Honors, Transfers, Appointments, Elections, Civic and Associational Activities

PERSONAL NEWS

Howard O. Chapman, manager of Utica & Mohawk Cotton Mills, Inc., Seneca, S. C., division, has been elected assistant treasurer in addition to his other duties. Mr. Chapman has been connected with the firm for over 35 years.

Ellison S. McKissick, president of Alice Mfg. Co., Easley, S. C., has been made fourth vice-president of the Quartermaster Association. Mr. McKissick, who is also president of the American Cotton Manufacturers Institute, will serve the unexpired term of the late Earl Freeman, who was vice-president of Kellogg Co., Battle Creek, Mich.

William F. MacDonald was elected president of E. F. Houghton & Co., Philadelphia, Pa., at the annual stockholders' meeting last month. Mr. MacDonald, who will temporarily continue to hold also his present office as treasurer, succeeds Maj. Aaron E. Carpenter, who voluntarily relinquished the presidency and was elected chairman of the board of directors. By-laws provide, however, that Mr. Carpenter shall still remain the chief executive officer of the company. . . . James T. Eaton, manager of research and connected with the firm since 1937, was elected to the board of directors.

C. A. Barrett, formerly superintendent of the Fountain Inn and Simpsonville, S. C., plants of Woodside Mills, is now superintendent of weaving at Mooresville (N. C.) Mills. . . . Leon F. Frye, for the past two years associated with Frank Ix & Sons at Cornelius, N. C., has joined Mooresville Mills and is superintendent of carding and spinning.

J. C. Martin, a vice-president of H & B American Machine Co., Pawtucket, R. I., is now back in Atlanta, Ga., in charge of H & B's office in that city. He will head all sales and service activities in the Atlanta territory. . . . Creston P. Clark, formerly chief accountant, has been named assistant treasurer of the company. He has been with H & B since 1947. . . . Walter H. Greenwood has been elected secretary of the company. A member of the firm since 1895, Mr. Greenwood has served as assistant secretary for the past ten years. . . . James Cruickshank will continue to handle all advertising and publicity matters in addition to extra duties and special assignments from the president's office.

Charles B. Bowden has been appointed industry manager for textiles for the Brown Instruments Division of Minneapolis-Honeywell Regulator Co.

Frank J. Aiken has resigned as manager of the Gerrish Milliken plant at Pendleton, S. C., and has been succeeded by George Asnit, who has been with Deering, Milliken & Co. three years, having been in charge of production at Judson Mills at Greenville, S. C.

C. M. Geer, assistant secretary of the USEO Division of Callaway Mills, LaGrange, Ga., recently celebrated his 20th year with the company.

H. D. Whitener, general superintendent of Rex Mills, Inc., Gastonia, N. C., has been elected a director of the firm, succeeding the late Carl A. Rudisill. He joined Rex in 1941 as assistant superintendent.

Edmund D. Haigler has recently joined Fischer & Porter Co., Hatboro, Pa., to work on special customer engineering problems. He has over 20 years' experience in industrial instrumentation, having formerly been associated with the Chevrolet division of General Motors, E. I. du Pont de Nemours & Co. and the Foxboro Co. Mr. Haigler was on the four-man instrument team which studied German industry for the U. S. government in 1945.

John Cole has been elected assistant secretary of William Iselin & Co., Inc., and is to be transferred from the Grand Rapids, Mich., office of the company to New York, where he will assist in the direction of new business activities. Mr. Cole joined William Iselin in July, 1939, following his graduation from Yale University.

Harold F. Merritt has been appointed executive vice-president responsible for the direction of all activities of the Solvay Sales Division of Allied Chemical & Dye Corp. Mr. Merritt started in 1913 with Wing & Evans, Inc., and with the exception of two years in the Army during World War I, has served continuously with that company and the Solvay Sales organization which succeeded it. He has been a vice-president of Solvay Sales for the past 19 years.

Clyde T. Moore, formerly associated with Fontaine Converting Works, Martinsville, Va., is now superintendent of the rayon division of North Carolina Finishing Co. at Salisbury, N. C.

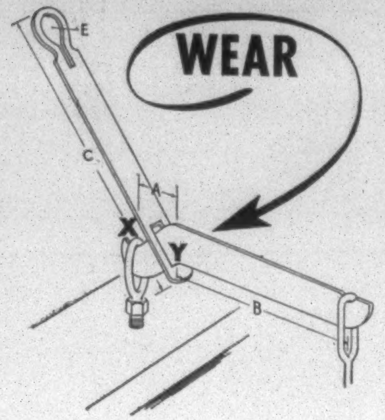
John M. McAlister, Jr., left, has been promoted from assistant superintendent to superintendent of the Fries, Va., plant of Washington Mills Co. Mr. McAlister succeeds D. J. Whitaker, who recently retired after having served with the company 47 years. A native of Greensboro, N. C., Mr. McAlister is a 1947 graduate of Davidson College, his college studies having been interrupted by a 2½-year stretch as a fighter pilot in the Army Air Force. He joined Washington Mills Co. upon his graduation from Davidson and has worked in all departments of the mill.

Glen M. Simpson, secretary-treasurer of the Callaway Community Foundation, received a 25-year award Feb. 15 upon completion of a quarter-century of service with Callaway Mills, LaGrange, Ga. From 1943 to 1945 he was assistant to President Fuller E. Callaway, Jr.

Recently named to the operating staff of the new E. I. du Pont de Nemours & Co. May Plant at Camden, S. C., were James H. Ellett, manufacturing superintendent; Burton D. Cowan, service superintendent; John W. Hash, personnel superintendent; Lawrence B. Steele, Jr., technical superintendent; Samuel G. Crews, work engineer; and Gafford T. Cooper, chief clerk. Mr. Cowan and Mr. Crews are now at work in Camden and the other four are presently stationed at the pilot plant in Waynesboro, Va. They will report to Camden during the next four months. . . . Arlington Kunsman has been named assistant general manager of the Du Pont company's newly-created Film Department, which will be activated April 1. Mr. Kunsman goes to his new post after having served as manager of the Cellophane division of the rayon department.

J. M. Cheatham, son of the late John H. Cheatham, who died Feb. 17, has been elected to succeed his father as president of three textile mills at Griffin, Ga. They are the Dundee Mills, Lowell Bleachery, South, and Rushton Cotton Mills. In addition to being president of the three mills at Griffin, Mr. Cheatham will serve as treasurer of Rushton Mills. . . . Walker W. Norman has been elected to be vice-president and treasurer of Dundee Mills. Mr. Norman

It pays to know the whereabouts of WEAR



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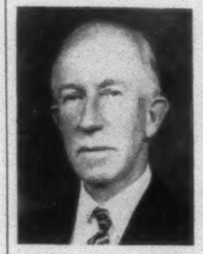
formerly was vice-president and secretary. E. C. Hulsey has been elevated from assistant secretary to secretary; Floyd C. Newton, Jr., has been named assistant treasurer; and George N. Murray, who has been an official with Dundee Mills for many years, has been named to the board of directors to fill the unexpired term of John H. Cheatham. . . . George N. Murray has been re-elected vice-president at Lowell Bleachery, South, and in addition has been named treasurer. Mrs. Albert Hollingsworth has been promoted from assistant secretary to secretary. . . . Cooper Mills has been elected a director at Rushton Cotton Mills to fill the unexpired term of John H. Cheatham. R. W. Cheatham has been named secretary and assistant treasurer.

Claud Cason, master mechanic of the Porterdale, Ga., plant of Bibb Mfg. Co., has completed 30 years of service with the firm. Thomas J. Cobb, chief electrician at the Payne Mill in Macon, Ga., is another Bibb veteran who recently rounded out 30 years with the company. Archie W. Horton, overseer of carding at the No. 2 Mill at Macon, has completed 25 years of continuous employment.

Robert J. Linial and Thomas J. Osborne have been elected vice-presidents of Lane Cotton Mills Co., New Orleans, La., a subsidiary of M. Lowenstein & Sons, Inc. Mr. Linial is vice-president of M. Lowenstein, and Mr. Osborne is merchandise manager of the Lane offices in New York. . . . E. M. Bost, superintendent of the Lane plant in New Orleans, has been elected assistant vice-president.



Dr. James E. Mills, director of chemical research for Sonoco Products Co., Hartsville, S. C., recently was notified by the American Chemical Society that 1950 marks his 50th year of membership in the society and that he will be presented a 50-year membership certificate in recognition of loyal support of the society and its activities.

Mrs. Wilson Williams has succeeded her husband as president of Medley Mfg. Co., textile machinery firm of Columbus, Ga.

C. A. Gibson, president of F. W. Poe Mfg. Co. at Greenville, S. C., and Calhoun (S. C.) Mills, has been elected a director of Ely & Walker Dry Goods Co., operator of the two South Carolina plants. Mr. Gibson has been in textile manufacturing for 23 years and became associated with Ely & Walker in 1946.

A. G. Singleton, formerly chief engineer at Monarch Mills, Union, S. C., assumed a new position March 6 as director of plant engineering at Fieldcrest Mills, Spray, N. C. Mr. Singleton is a native of Alabama and is a graduate of Alabama Polytechnic Institute in mechanical engineering.

D. C. Chandler has resigned as superintendent of the Adrian and Madora plants of American Yarn & Processing Co., Mount Holly, N. C., to become associated with Osage Mfg. Co. of Bessemer City, N. C., as superintendent of yarns.

John Richardson has joined Hunt Machine Works, Inc., Greenville, S. C., as vice-president, director and sales manager. Mr. Richardson had an important post in the Crompton & Knowles sales department, as well as having been advertising manager, for over 20 years prior to World War II. His special sales field was in the silk and rayon industries, and in the advertising field his C. & K. trade paper campaigns in two successive years won first prizes from the National Industrial Advertising Association. Hunt Machine Works recently received an R.F.C. loan in the amount of $240,000, which will supplement present working capital. The firm will press for its share of the textile machinery business in making its own HL 16, HR 50 and HC 50 looms, rebuilding E and X looms, and a vigorous promotion of its other items.

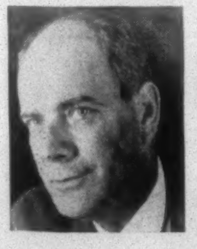
T. A. McNeill, formerly with Dan River Mills, Danville, Va., has been named superintendent of Glendale Mills, Inc., Douglasville, Ga.

Walter L. Sprye is now superintendent of Angle Silk Mils, Inc., Rocky Mount, Va., having succeeded J. P. Eller, retired.

M. C. Ramm has resigned as superintendent of the Greensboro, N. C., weaving plant of Burlington Mills Corp. to accept the post of superintendent of the R. & A. Gant plant at Burnsville, N. C. Mr. Ramm had been superintendent of the weaving plant for 14 years. . . . Leeman Lamarr, formerly superintendent of Burlington's Hillcrest plant at High Point, N. C., has been named to succeed Mr. Ramm at Greensboro. . . . G. T. Gardner, assistant general manager of the Cramerton, N. C., division of Burlington Mills Corp., has been given an extended leave of absence from Cramerton for special duties elsewhere in the Burlington organization. . . . In the filament weaving and throwing division Carlyle Lewis now has supervision over the Lexington, High Point, Greensboro Weaving and Central Falls plants and J. R. Lathan has supervision over Reidsville and Ossipee plants in addition to Plaid, Mayfair and Bellemont. Arnold Sanders, formerly assistant superintendent at Plaid, has been promoted to superintendent at Hillcrest throwing plant at High Point, N. C. Plants Manager Harlan Pruett has been given supervision over Hillcrest in addition to High Point throwing and weaving, while Eugene Boyle was promoted to superintendent of High Point weaving. At the Mayfair plant in Burlington Robert Swift was promoted from second shift overseer to first shift overseer and Burnice Denny was promoted from second shift supervisor to second shift overseer. Joel Radcliffe, formerly assistant to the superintendent at the Lexington, N. C., rayon plant, has been given a new assignment as assistant to W. L. Horne, head of the company's sample department in Greensboro. In Virginia, Group Manager C. G. Burrows has been elected a director of the Roanoke Chamber of Commerce and Superintendent R. P. Arnold of the Radford weaving plant has been elected treasurer of the Radford Chamber of Commerce. At Mayfair Carl Thomas has been promoted from number ten redrawing to third shift overseer. . . . Benjamin F. Nuttall, formerly affiliated with Textron Southern at its Ponce, Peurto Rico, facility, has become associated with Burlington Mills Corp. and has been assigned to assist in the methods and standards program at Flint No. 1 plant in Gastonia, N. C. . . . Sam Stallings has been transferred from the Phenix plant at Kings Mountain, N. C., where he was methods and standards engineer, to Flint No. 1. He has been succeeded at Phenix by Joseph Hagler. . . . Recent personnel changes at Flint No. 1 include: Ralph L. Reid, former second hand, promoted to second shift overseer of spinning; Charles H. Cope, elevated to the second hand post, succeeding Mr. Reid; Ross M. Townsend, formerly in the winding and twisting department, transferred to the first shift as a second hand in spinning; James C. Small appointed a second hand in winding and twisting. . . . Martin L. Strickland, for years a section man in the spinning room of Flint No. 2, Gastonia, has retired after more than 25 years with the firm.

H. Paul Bridges has been promoted from assistant superintendent to superintendent at Cliffside (N. C.) Mills, Inc. He succeeds the late J. A. Talbert. A 1935 graduate of Clemson (S. C.) College, Mr. Bridges was for a brief stretch connected with Cleveland Cloth Mills, Shelby, N. C., and Fieldcrest Mills, Leaksville, N. C., before joining Cliffside.

W. H. Taylor of Pelzer, S. C., has been elected chairman of the Western Carolina Safety Council, succeeding T. H. Turner of Union Bleachery, Greenville, S. C.



J. W. Davis has been appointed representative in the Southeast for Metheun (Mass.) Card & Napper Clothing Co., Inc. Mr. Davis has had 15 years actual plant experience in cotton carding and spinning and 12 years ago assumed his present post as manufacturers' agent handling textile mill supplies for the carding and spinning departments in textile plants of the Southeast—mostly Georgia, Alabama and Tennessee. Metheun Card & Napper Clothing Co., established in 1896, is family owned and controlled—three generations of the same family have owned the business. Re-equipped with the most modern machinery, the firm is expanding now with the desire to bring to the Southeast its years of experience in the manufacture of card and napper clothing.

J. R. Wikle has joined Troy Whitehead Machinery Co., Charlotte, N. C., as superintendent of the firm's supply department. A 1920 graduate of Georgia Tech, Mr. Wikle previously was associated with consolidated Textile Co. of Shelby, N. C.; Magnolia (Ark.) Cotton Mills; Railway Supply & Mfg. Co. and Calvine Mills of Charlotte; and Pomona Mills of Greensboro, N. C. . . . Alvin Teat has been appointed sales representative for the Whitehead firm in Georgia and Alabama. He will make his headquarters in Atlanta, Ga.

W. Ray Bell last month was re-elected president of the Association of Cotton Textile Merchants of New York. George M. Miller of Turner Halsey Co. was elected vice-president; Ridley Watts of Montgomery Textiles, Inc., was chosen treasurer; and John L. Severance was re-elected secretary. Appointed to the association's executive committee were the following: Alonzo F. Bonsal, Joshua L. Baily & Co., Inc.; Saul F. Dribben, Cone Export and Commission Co., Inc., and Robert T. Stevens, J. P. Stevens & Co., Inc.

A. Illges has been elected president of Swift Spinning Mills, Columbus, Ga. Mr. Illges succeeds Clifford J. Swift, who became chairman of the board on the resignation of E. W. Swift, who retains his membership on the board. Mr. Illges, who had been vice-president and treasurer, continues to serve as treasurer.

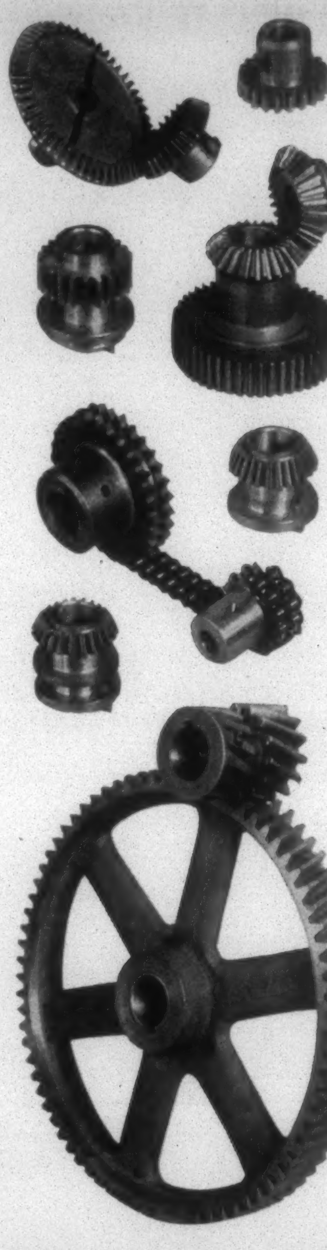
Basil D. Browder, A. B. Emmert and W. W. Lufkin, Jr., vice-presidents of Dan River Mills, Danville, Va., have been elected directors of the firm. Other new directors appointed were Thomas J. Michie of Charlottesville, Va., Curtis O. Cone of Richmond, Va., and A. Alex Shuford of Hickory, N. C., who himself is a cotton textile manufacturer.

E. A. Freeman, for the past four years assistant chemist of the Trion (Ga.) Division of Riegel Textile Corp., has been transferred to the dyeing and finishing department and has been succeeded in his former position by Hugh Brown, who was transferred from the control laboratory of the Ware Shoals (S. C.) Division. Both Mr. Freeman and Mr. Brown are graduates of Clemson (S. C.) College.

Thomas Bridgman, formerly with Celanese Corp. of America at Staunton, Va., Jack Engram, formerly with Thomaston Mills at Griffin, Ga., and Sam Overcash have all been made shift overseers of weaving at Schneider Mills, Taylorsville, N. C. . . . Marcus M. Deal has been made overseer of slashing, warping and winding and Mrs. Helen Fulbright overseer of grading of gray goods.

Raymond Maine, assistant to the vice-president of Universal Winding Co., Providence, R. I., recently was awarded the Leffingwell Key and Scroll for outstanding service by the Providence Chapter of the National Office Management Association.

John C. Tipton is resigning his position as foreman of the carding department at Highland Park Mfg. Co., Charlotte, N. C., and upon retirement will make his home at Young Harris, Ga. Mr. Tipton's career in the textile industry covers nearly a half-cen-



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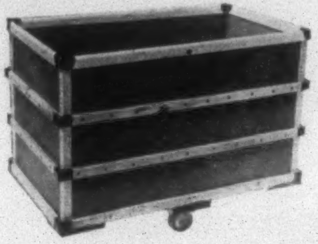

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EXCEL
Textile Supply Co.
"Excel Trucks Excel"
LINCOLNTON, NORTH CAROLINA

tury, during which time he served with a number of plants in the Carolinas.

George M. Wright, Jr., resigned March 1 as assistant superintendent of Gaffney (S. C.) Mfg. Co. to become superintendent of Plymouth Mfg. Co. at McColl, S. C. . . . George T. Rankin, formerly overseer of carding, has been promoted to assistant superintendent at Gaffney Mfg. Co., succeeding Mr. Wright.

Burnard H. Sord has been appointed superintendent of the Uniontown, Ala., operations at New Canebrake and Calcot plants for the California Cotton Mills Division of National Automotive Fibres, Inc. Mr. Sord was associated with the company in a supervisory capacity for several years prior to the war. He entered the Army in 1943 and was seriously wounded in the Normandy invasion in 1944.

H. M. Block, vice-president of United States Testing Co., Inc., arrived in Karachi, Pakistan, March 21 where he will make his headquarters for three weeks while conducting a study of the installation of neutral testing laboratory facilities in Pakistan. While there he will meet with Pakistan government officials to make arrangements for the establishment of a laboratory in that country.

Dr. Carl E. Barnes (pictured at left below) has been appointed director of research for Arnold, Hoffman & Co., Inc., and Chauncey E. Allard (right) has been named associate director. They will be in charge of enlarged research and sales service laboratories, which are part of a program to provide better service to the company's expanding line of dyestuffs and textile chemicals, enlargement of its sales service work and development of chemical products for new fields. Dr. Barnes was formerly associate director of the central research laboratory of General Aniline and Film Corp. Mr. Allard has been with Arnold, Hoffman since 1942, being in charge of general research since 1948.

R. Z. Cates, president of Arkwright Mills, Spartanburg, S. C., has been elected a member of the board of directors of Southern Airways.

A. B. Emmert, vice-president and cotton buyer of Dan River Mills, Inc., Danville, Va., has been named a director of the First National Bank of Danville.

George W. Fox of Randleman, N. C., a junior in the School of Textiles at North Carolina State College, has been awarded the Owens-Corning Fiberglas Corp. scholarship for two years of study. The scholarship, valued in excess of $1,000, will cover the tuition and fees of Mr. Fox for both his junior and senior years and will provide an additional expense allowance of $50 per month during a 20-month period.

Paul A. Redmond, Jr., executive vice-president of Alabama Mills, Inc., Birmingham, Ala., and president of the Alabama Cotton Manufacturers Association, recently was named by Gov. James E. Folson of Alabama to serve on a statewide committee on economic trends. The group will focus its attention on increasing the number of job opportunities in Alabama, and the full use of the state's manpower, capital and natural resources.

Walter Gaudet, formerly with the Atlanta, Ga., office of H & B American Machine Co., has joined Pneumafil Corp., Charlotte, N. C., as sales engineer devoting his time at present to research and development.

Andre Blumenthal, vice-president, Sidney Blumenthal & Co., has been appointed chairman of the executive committee of the board of directors of the Textile Research Institute, Inc. Mr. Blumenthal succeeds Kenneth Wilson, vice-president of Forstmann Woolen Co., who has held the chairmanship for 15 months. He asked to be relieved of the leadership due to added responsibilities following the death last month of Curt E. Forstmann, president of Forstmann Woolen Co.

William E. Wyche of Gastonia, N. C., has been named vice-president of Southeastern Factors Corp. of Charlotte, N. C. Mr. Wyche formerly had been Southeastern representative of Coleman & Co., New York factors, since 1948, and prior to that served four years as general manager of the textile division of Voit Rubber Corp.

E. B. Rice, treasurer of Blair Mills at Belton, S. C., has been elected first vice-president of the Belton Chamber of Commerce.

Hiram S. Hall and F. Albert Hayes have been elected vice-presidents of Bigelow-Sanford Carpet Co., Inc. Mr. Hall has served as director of personnel administration since 1944 and Mr. Hayes as director of purchasing since 1946.

R. A. Roosevelt has been promoted to the position of sales manager for Eriez Mfg. Co., Erie, Pa., manufacturer of magnetic separation equipment. Advertising manager for the past three years, Mr. Roosevelt in his new post will direct both advertising and sales for the firm.

Allen Adkins, a graduate of Emory and Henry College, and Lawrence Beauregard, from the University of Vermont, have joined the staff of Harris Research Laboratories, Washington, D. C.

William J. Erwin, vice-president and general manager of the Ware Shoals (S. C.) Division of Riegel Textile Corp., has been named to the board of Lander College Foundation at Greenwood, S. C., succeeding W. D. N. Outz, assistant secretary at Ware Shoals.

James H. Gilman, Jr., is the new advertising manager of Draper Corp. Born in Miami, Fla., and a resident of Washington, D. C., he is a graduate of St. Paul's School at Concord, N. H., and Harvard University. He served 5½ years in the Navy, becoming lieutenant commander, U.S.N.R., and serving as commanding officer of four ships. He joined the Draper organization in 1946, worked through various departments in the shop and office, and then sought practical experience in textile manufacture by working for Continental Mills and the Androscoggin Division of Bates Mfg. Co. at Lewiston, Me. He has been in the Draper advertising department since January, 1949.

Charles W. Coker, previously vice-president, has been made executive vice-president of Sonoco Products Co., Hartsville, S. C. Richard G. Coker, who has held the title of secretary and chief engineer, has been elected vice-president in charge of engineering and secretary, while C. K. Dunlap, previously vice-president in charge of engineering and development, now holds the title of vice-president.

R. Dave Hall will be principal speaker at the 27th annual convention of the Atlantic Cotton Association to be held March 24-25 at Augusta, Ga. Mr. Hall is an official of Climax Spinning Co., Majestic Mfg. Co., Sterling Spinning Co. and Stowe Thread Co., Belmont, N. C.

Robert W. Gaines has been appointed technical representative with the synthetic fibers department, Carbide & Carbon Chemicals Division, Union Carbide & Carbon Corp. Mr. Gaines was transferred to the New York office from the corporation's plant in South Charleston, W. Va., where he served as assistant department head of yarn development. He is a member of the American Chemical Society and the American Institute of Chemical Engineers. . . . Arthur L. Snyder has joined the synthetic fibers department of Carbide & Carbon Chemicals Division, Union Carbide & Carbon Corp. Mr. Snyder formerly was associated with Burlington Mills as technical manager of the Flat Goods Corp. He had previously served for over 23 years in various capacities with the rayon department of E. I. du Pont de Nemours & Co., Inc. He is a member of the American Association of Textile Technologists and the American Association of Textile Chemists and Colorists.

P. Huber Hanes, Jr., vice-president in charge of manufacturing for P. H. Hanes Knitting Co., Winston-Salem, N. C., has been elected a director of the Wachovia Bank & Trust Co. For the past two years he has been on the bank's Winston-Salem branch board.

New territory assignments for sales personnel of Meese, Inc., Madison, Ind., producer of the Shamrock line of canvas baskets, hampers and trucks, were announced recently as follows: John A. Wurtz—Illinois, Kentucky, Tennessee, Mississippi, Alabama and Georgia; Frank G. Hanson—Ohio, Pennsylvania, Delaware, Maryland, Virginia, West Virginia, North Carolina and South Carolina; Charles B. Stoltz—Texas, Louisiana, Arkansas, Oklahoma and Missouri.

Fred Winecoff has joined New York & New Jersey Lubricant Co. as its representative in the northern North Carolina and Virginia area, succeeding the late William C. Taylor. Mr. Winecoff lives in Greensboro, N. C., and has been intimately connected with the textile industry for the past 18 years. He was with the Cone Mills for 13 years at the White Oak plant, and completed its textile course. He has a thorough working knowledge of weaving and all other textile departments.

OBITUARIES

Walter J. Briden, 58, secretary-treasurer of Sayles Finishing Plant, Inc., Saylesville, R. I., died Feb. 24. Surviving are his wife and a daughter.

Homer L. Boyles, 49, a second hand in the weave room at the Trion, Ga., division of Riegel Textile Corp., and a member of the Trion City Board of Education, died Feb. 10 after a brief illness. Surviving are his wife, two daughters and a son.

John H. Cheatham, 67, of Griffin, Ga., president and treasurer of Dundee Mills, Inc., and Rushton Cotton Mills of Griffin, and Hartwell (Ga.) Mfg. Co., died Feb. 17 of a heart attack. At the time of his death Mr. Cheatham operated cotton mills with 108,000 spindles and 3,868 looms, and in addition headed Lowell Bleachery, South, at Griffin, comprising five plants. Active in many business and civic organizations, Mr. Cheatham has been president of both the former American Cotton Manufacturers Association and the Cotton Manufacturers Association of Georgia. His wife, a daughter, four sons and a sister survive.

James Merriman, treasurer of Dyersburg (Tenn.) Cotton Products, Inc., from the beginning of the firm's operations in 1929 until 1931, died Feb. 15 at his home in Oswego, N. Y. Survivors include a brother, W. H. Merriman, plant engineer for Dyersburg.

Sanders H. Smith, 68, retired cotton merchant and textile executive of Lindale, Ga., died March 8. Mr. Sanders joined Pepperell Mfg. Co. in 1927 and served for a number of years as manager of the cotton department at the plant at Lindale. His wife, a son and a daughter survive.

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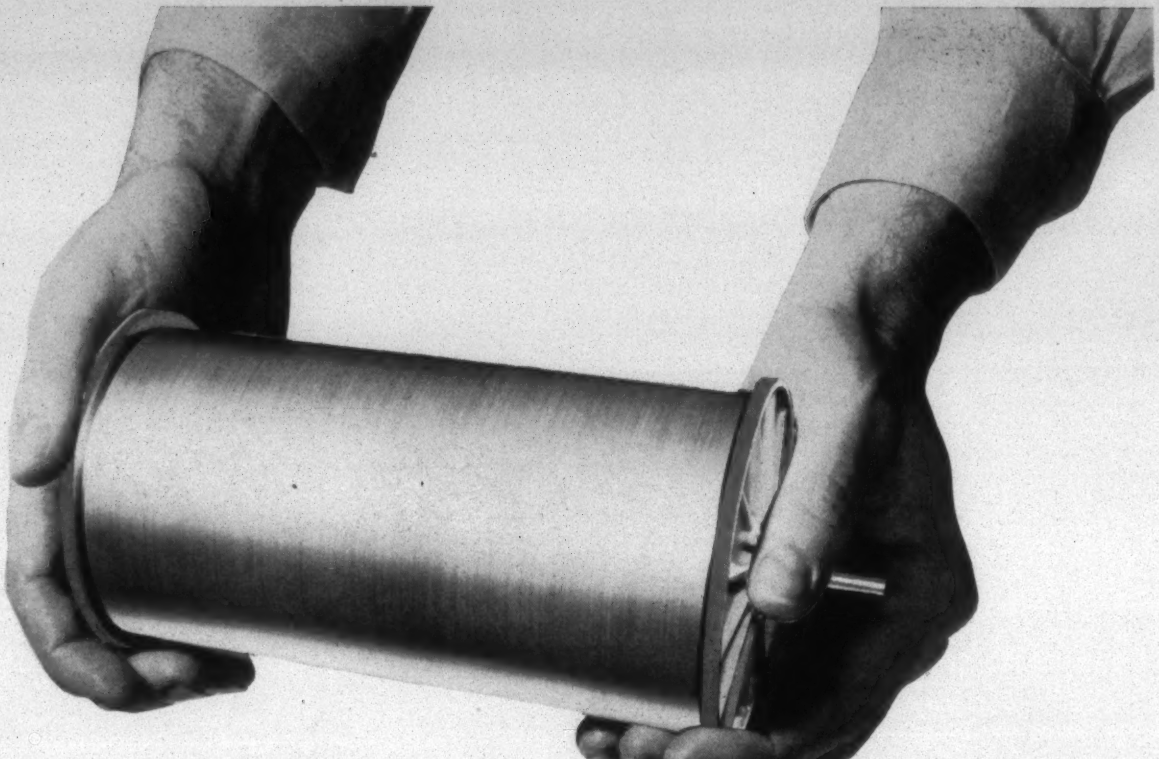

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MILL NEWS

CONSTRUCTION, NEW EQUIPMENT, FINANCIAL REPORTS, CHARTERS, AWARDS, VILLAGE ACTIVITY, SALES AND PURCHASES

FORSYTH, GA. — Forsyth Cotton Mills, Inc., which utilizes 36 cards and 6,000 spindles in the production of 4s to 12s cotton yarns and sewing twines, is being offered for sale or lease. Considerable new equipment has been installed, it is stated. G. O. Persons, president, declared he would prefer to sell the machinery and equipment and lease the building.

GONZALES, TEX.—Gonzales Cotton Mill has been purchaseod by Bryan C. Miller, vice-president of Texas Textile Mills, Dallas, Tex., a former official at Gonzales. The plant, idle several months, has been reopened and is now producing twills, drills and osnaburg. The name of the mill will remain unchanged and it will continue as a corporation, composed of Mr. Miller and his family.

ITASCA, TEX. — Itasca Cotton Mfg. Co. celebrated its golden anniversary March 6 by launching a two-way expansion program. Itasca Weavers Guild, the mill's selling organization, plans a nation-wide extension of its mill-to-consumer business; the number of fabrics, now about 100, will be doubled within the next two years. The recently modernized plant operates 11,288 spindles and 260 automatic looms and employs an average of 350 persons.

LOWLAND, TENN. — Construction of additions to the yarn plant of American Enka Corp. is expected to begin soon as part of a program to expand the output of rayon textile yarn by about 10,000,000 pounds. A second step in the program, it is reported, will be undertaken at both the Enka, N. C., and the Lowland plants around the end of the year. An estimated expenditure of $8,750,000 is involved, it is said.

GASTONIA, N. C.—A complaint filed last month by American Yarn & Processing Co., Mount Holly, N. C., seeks a court order requiring Whitehall Knitting Mills, Inc., Mount Holly, and four of its directors to perform a contract claimed to have been made last Jan. 17 to sell the knitting mill's land and buildings to the yarn manufacturing firm. Plaintiff claims officers of American Yarn & Processing Co. and defendants reached an agreement whereby Whitehall's land and buildings would be sold to plaintiff for $58,000. Since that time, it was claimed, defendants have attempted to sell the property to another person.

NEW YORK, N. Y.—For the second year in succession, *Avisco News*, the employee magazine of American Viscose Corp., edited by Margaret Gleeson, has been chosen to receive "The Score Award." The award was presented by Newcomb & Sammons, Chicago management consultants, "to those programs and devices of employer-employee communication which, in the editors' opinion, had most soundly rung the bell for the preceding 12 months." Several thousand publications were examined by the judges, Robert Newcomb and Marg Sammons, who singled out 59 for recognition this year compared to 20 last year. Mr. Newcomb and Miss Sammons edit and publish *The Score*, a monthly concerned with how best corporate management may communicate with its employees.

PINE BLUFF, ARK.—Four hundred bales of Arkansas-grown cotton of the highest grade has been purchased by the new Pinecrest Cotton Mills here for initial production of high grade sheeting and pillow cases. Manager E. C. Lee said the mill will go into full production within a few weeks.

REYNOLDS, GA. — Employees of Taylor Mill, a unit of Bibb Mfg. Co., were honored at a banquet March 4 in recognition of having worked two years without a lost-time accident.

ABERDEEN, N. C.—Main offices of Robbins Cloth Mills are being moved to Aberdeen. The move is being made in order to locate more centrally the administrative unit between the three North Carolina properties of the firm at Red Springs, Aberdeen and Robbins.

BESSEMER CITY, N. C.—Osage Mfg. Co., a unit of Reeves Bros. Corp., is to be converted from a cotton to a rayon operation at an estimated cost of $1,500,000. All present machinery will be discarded except the cards. Delivery of machinery is expected to begin in April and it is hoped that the plant will be ready for operation in July or August.

BURNSVILLE, N. C. — Preparations are being made here for construction of a $1,500,000 nylon-rayon weaving plant for the Duplan Corp. of New York. When completed, the facility will employ between 450 and 500 persons. Duplan operates other Southern plants at Grottoes, Va., Cleveland, Tenn., and Winston-Salem, Lincolnton and Forsyth, N. C.

HOPEDALE, N. C.—Initial construction is under way here on a plant for Copland-Fowler Industries, Inc., a new corporation representing an investment of $1,500,000. The firm will operate 224 wide looms and other auxiliary equipment in the production of fabrics for women's lingerie. Limited production is expected to get underway in October. The plant, which will contain 60,000 square feet of floor space, is located near two other Copland organizations, Copland Fabrics, Inc., and Copland Converting Corp.

OXFORD, N. C. — The Oxford plant of Burlington Mills Corp., which for the past 50 years has been producing various types of fine cotton wearing yarns, was on March 1 switched to the production of spun rayon yarns.

HOPE MILLS, N. C. — Mill No. 2 of Rockfish-Mebane Yarn Mills, Inc., here has been acquired by Brower Mills, Inc., a newly-organized corporation headed by E. N. Brower, who is also president of Rockfish-Mebane. The plant utilizes 8,000 spindles in the production of 24/2 to 30/2 carded yarns. Mr. Brower will have general charge of sales.

GASTONIA, N. C.—Todd-Smith Banding Co. last month installed machinery for a complete cotton mill unit at Chestnut and Second Streets here, bringing to 136 the total number of cotton mills in Gaston County.

HIGH POINT, N. C.—A grand jury of the Rockingham Middle District Court recently returned a true bill of indictment against Dr. N. M. Harrison, an ordained minister and former vice-president of High Point College, and O. R. Blaylock of Asheboro, N. C., for filing false and fraudulent excess profit taxes and income taxes on behalf of Leward Cotton Mills of Worthville, N. C., in 1943-1946. Dr. Harrison was president of the concern and Mr. Blaylock treasurer during the tax years involved. Both men are charged also with making false tax returns on their personal incomes for the four years. They sold their interests in Leward Cotton Mills, Inc., more than a year ago.

GASTONIA, N. C.—The Hanover, Pinkney and Rankin plants of Textiles, Inc., will in the future be operated as the Pinkney plant. The names of Hanover and Rankin are being dropped. All spinning frames from the Pinkney and Rankin units are being reinstalled in the Hanover facility. Likewise, the cards from Hanover and Rankin will be reinstalled in the present Pinkney plant. Rankin's building will receive the twisters and winders from Hanover and Pinkney.

LEXINGTON, N. C.—Frank H. Conner Co. of Charlotte, N. C., has been awarded the contract for the first big addition to the new plant of Frank Ix & Sons, Inc., nearing completion here. The new addition will be 235 by 180 feet and will be an extension of the original building on the south side. The main floor, with approximately 42,300 square feet of floor space, will be used for the filament throwing room.

LAUREL HILL, N. C.—McKoy-Helgerson Co. of Greenville, S. C., has been awarded the contract at $172,780 for construction of an addition to the Springfield plant of Morgan Cotton Mills here.

GASTONIA, N. C.—Clara Mill, a unit of Gastonia Combed Yarn Corp. which has been closed since April, 1949, is being rebuilt and completely modernized at a cost of approximately $1,000,000 and will start operating again as soon as new machinery can be installed. R. J. Gurney, president of the Gastonia Combed Yarn Corp., stated that contracts had been placed with Whitin Machine Works estimated at $600,000 and a number of smaller contracts with other companies. New machinery on order includes combers, lap machines, drawing, roving frames, spinning frames and winders. A number of new cards will be added to the present card room and the picker room already has new opening, cleaning and single process pickers which were installed in 1948. Extensive repairs and enlargements are being made to the existing buildings which will be completely air conditioned by means of electrostatic filters and air washers. When the rebuilding is completed, the Clara plant will employ about 400 people.

SALISBURY, N. C.—Alexander Mfg. Co. of Forest City, N. C., has been merged with North Carolina Finishing Co. of Salisbury and in the future will be known as the Alexander Mills Division of North Carolina Finishing Co. Julian Robertson is president of the two companies.

DURHAM, N. C.—Bids were to have been received March 7 for construction of a two-story, 60 by 120-foot addition to Mill No. 6 of Erwin Cotton Mills Co. The contract also calls for re-roofing the present mill building. Plans for the project have been prepared by Lockwood Greene Engineers, Inc., Spartanburg, S. C.

MOORESVILLE, N. C. — Six plants of Mooresville Mills recently were awarded ribbons by State Labor Commissioner Forrest H. Shuford for having made an outstanding record in the field of accident prevention. This marked the third consecutive year that five of the plants had qualified for the award.

CLINTON, S. C.—Clinton Cotton Mills opened its new office building and community building March 7 with the public invited to attend formal open house ceremonies from 7 to 9 in the evening.

ROCK HILL, S. C.—J. P. Stevens & Co. last month announced that 472 company-owned houses at its Aragon and Industrial plants here would be sold to employees. The sale will begin April 10.

SPARTANBURG, S. C. — Stockholders of Beaumont Mfg. Co., South Carolina Mills, Carolina Textiles, Inc., and Raycord, Inc., were scheduled to meet March 29 to act upon a proposed merger between the four firms. Beaumont is a large spinning and weaving company producing drills, twills and industrial fabrics; Raycord produces men's shirts and pajamas, and South Carolina Mills is a mail order house with which Carolina Textiles, Inc., a supply house, is connected.

GREENWOOD, S. C.—The new Harris filament rayon weaving plant of Greenwood Mills is expected to begin operations by the end of this month. The plant will employ between 600 to 700 persons, utilizing 20,000 spindles and 700 looms. The modern building is 230 by 860 feet, covering almost five acres.

SPARTANBURG, S. C.—Construction of a new office building, 36 feet wide and 125 feet long, is underway at Drayton Mill. The new structure will be joined to the east end of the spinning mill. Housed in the new building will be the general superintendent's office, the departmental superintendent's office, the planning department, timekeeping department, the production standards department, the engineer's office, and conference room.

GREENVILLE, S. C. — A Federal Court judge last month directed an order of dismissal be prepared in a case against Brandon Corp. In the case of Joseph T. Johnson, plaintiff, vs. Brandon Corp., Judge George B. Timmerman ordered the defendant to prepare an order of dismissal without prejudice to the plaintiff to bring another action. Mr. Johnson of Milwaukee, Wis., a stockholder in Brandon Corp., alleged in his original complaint that Brandon is building up an "unwarranted accumulation of corporate earnings" and asked to be paid $25 a share of stock instead of $5.

GRANITEVILLE, S. C.—The new finishing plant for Graniteville Co. is expected to be completed and in full operation by the end of this month. The building and equipment cost an estimated $4,000,000. Completion of the unit will put all finishing operations under one roof and give facilities of 240,000 square feet of floor space.

BOSTON, MASS.—Pacific Mills was able in 1949 to maintain its unit sales volume close to 1948 peak levels but the drop in the general price levels of textiles adversely affected earnings, Henry M. Bliss, president and treasurer, announced Feb. 21. Net profits for the past year amounted to $3,806,194, equal to $4.16 per share after income taxes of $2,355,000, compared with $10,425,049 or $11.39 per share after income taxes of $8,514,000 and an increase in the reserve for contingencies of $3,000,000. Sales for the year totaled $98,807,948 as compared with the peak of $112,753,525 reached in 1948. In the ten years ended Dec. 31, 1949, the company has invested $36.04 per share on plant and equipment, Mr. Bliss stated. The company's net worth amounted to $69.30 per share at the year-end while working capital was equivalent to $36.79 per share. Declaring that Pacific Mills looks forward with confidence to a year of successful accomplishment, Mr. Bliss stated that "the company is directing its efforts toward further improving its products and its services to its customers, lowering its costs of operation by increasing productivity, and constantly watching the risk element in the company's inventories."

NEW YORK, N. Y.—Celanese Corp. of America in its annual report issued March 8 listed 1949 net income of $20,640,826, equal to $3.19 a share. This compares with $39,484,000 in 1948, or $6.61 a share. Operations rose to a high level in the last quarter of 1949, the report shows. Earnings for the fourth quarter were $9,651,956, more than double the $4,814,210 of the third quarter and only slightly under the $9,691,228 of the last quarter, 1948. President Harold Blancke reported that all departments of the yarn producing plant at Rock Hill, S. C., were brought into operation last year and that plans are being considered for future expansion should general economic conditions justify such steps.

WILLIAMSTON, S. C.—The new 150,000 square foot rayon plant of Textron Southern, Inc., is expected to be completed and ready for the installation of machinery by April 1. The plant, which will have 960 looms and employ more than 300 persons, is expected to be ready to begin operations by May 1. Textron Southern operates another plant in Williamston which produces wide print cloths.

DANVILLE, VA.—Dan River Mills, Inc., last month issued to stockholders its annual statement showing a decline of nearly $12,000,000 in net profits in 1949 under the

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THE NEW J. P. STEVENS & CO., INC., HEADQUARTERS FOR ITS CARTER FABRICS OPERATING GROUP to be constructed at Greensboro, N. C., is given this rendition by Architect Charles C. Hartmann. The three-story, $500,000 building, measuring 250 by 60 feet, will contain 45,000 square feet of floor space.

• Henry G. Elrod

COMMERCIAL PHOTOGRAPHER

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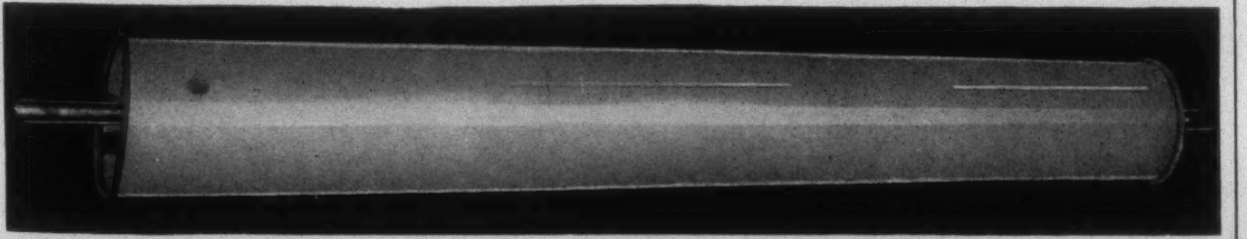


JENKINS METAL SHOPS, Inc.
GASTONIA, NORTH CAROLINA

banner year of 1948. The report reveals net sales of $64,998,260 and other income of $1,238,040, resulting in a net profit of $3,332,724 for the year 1949, equivalent to $2.09 per share of common stock after preferred dividend requirements. This compares with net sales of $103,603,913 and net profit of $15,108,988 for 1948, equivalent to $9.92 per share of common stock.

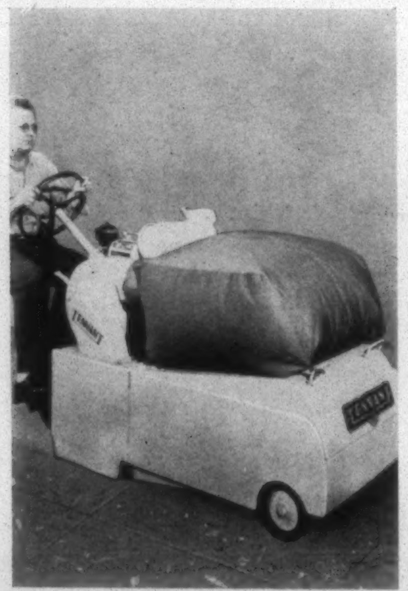
ROANOKE, VA.—Burlington Mills Corp. is planning an expansion of 60,000 square feet at its Roanoke weaving plant. The new addition will provide space for auxiliary equipment to complement the present Roanoke operation and will increase the productive capacity of the plant. It will also provide needed warehousing space. The enlarged operation is expected to provide jobs for more than 100 additional persons and increase the Burlington payroll at Roanoke by $300,000 per year. The Roanoke plant now employs 550. The Burlington operation at Roanoke is in filament weaving.

For The Textile Industry's Use

EQUIPMENT — SUPPLIES — LITERATURE

New Tennant Power Sweeper For Use In Textile Plants

A new type high-speed, vacuum-equipped power sweeper designed for easy handling in crowded mill areas and narrow aisles has been developed by G. H. Tennant Co. of Minneapolis, Minn. Though less than 29 inches wide, the machine is claimed to be able to sweep in excess of 43,500 square feet per hour. It is operated by one man. Use of a two-speed transmission gives the new sweeper a wide operating range—with speeds up to eight miles per hour for open areas and as low as two miles per hour for safe handling in narrow aisles and crowded areas. A reverse gear adds to handling ease.



Extra-clean sweeping is said to result from use of a combination brush-and-vacuum system. A 24-inch wide brush revolves inside a sealed-to-floor, vacuum-equipped compartment, hurls lint, waste and litter into an enclosed, built-in "floating" type hopper. At the same time a high volume fan draws lighter dust, yarns, etc., into a large vacuum bag. Since sweeper brush and vacuum fan revolve at high speed (powered directly from the 4.4 horsepower air-cooled engine) soilage pick-up is as efficient at two miles per hour as at eight miles per hour.

To begin sweeping, the operator simply lowers the brush with a foot pedal, shifts to high or low, and presses the accelerator pedal. A centrifugal type automatic clutch engages smoothly when the engine reaches a preset speed. The sweeper is equipped with front wheel automotive-type steering, both foot and parking brakes, and sealed ball and roller bearings throughout. Various types of brushes are available. A rotary side sweeping brush for sweeping flush with walls, looms, under guard rails, etc., will be available as an accessory. Manufacturer is the G. H. Tennant Co., 2580 North Second Street, Minneapolis 11, Minn. Additional information will be sent on request.

Chicago Ball Bearing Firm Moves Plant To Charlotte

Perfecting Service Co., Inc., producer of rotary union ball bearings, has moved its home office and factory to a new plant in Charlotte, N. C., at 332 Atando Avenue. The firm, according to officials, chose Charlotte as the site of its new headquarters because of its central location as a distributing center of the rapidly expanding industrial Southland. Rotary unions are adaptable on such textile applications as dry cans, slashers, coaters, calenders and dryers.

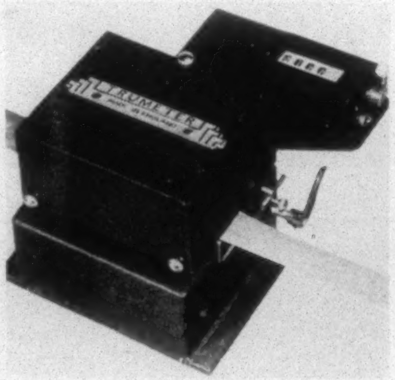
Alcoa Offers Booklet For Users Of Aluminum Paint

A comprehensive, 32-page brochure for industrial users of aluminum paint is being distributed to manufacturers by Aluminum Co. of America this month. The new Alcoa publication points out that while the company does not make or sell aluminum paint, it feels obligated to explain how aluminum paints can be used to best advantage. "Every paint with an aluminum color," the company says, "will not necessarily give you the same high standard of performance you have a right to expect."

The booklet emphasizes that uses of aluminum paint by business and industry fall into three classifications: (1) for metal, concrete and masonry and similar non-absorbent surfaces; (2) for weather-exposed wood; and (3) for interior heated surfaces and for decorative uses. Profusely illustrated, the book uses 30 photographs to show proven applications of aluminum paints over the years, ranging from oil refineries and coal tipples to industrial fencing and bridges. Several pages are devoted to questions and answers and an aluminum paint coverage table. A copy of the new book is available without cost by writing Alcoa on your business letterhead, 661 Gulf Building, Pittsburgh 19, Pa.

New Ribbon, Tape Measuring Machine Offered By Trumeter

A new product in the Trumeter Co. line is the Trumeter ribbon and tape measuring machine, which is a small addition of the maker's well-known cloth measuring apparatus. The machine is manufactured by Henry Livesey, Ltd., of England, of which the Trumeter Co., 1265 Broadway, New York City, is the representative in this country.



The machine operates in this manner. The ribbon or tape is inserted into the slot of the machine, a lever is pressed down and by pulling the material through the apparatus, it is measured and the measurement registered on the counter. The automatic brake embodied in the apparatus prevents over-spin, thus insuring absolute accuracy, and a single pressing down of the zero setting lever returns all figures to zero in readiness for the next operation. The apparatus adds one way and subtracts in the reverse direction. It can also be equipped with a ticket printer counting device, similar to the large Trumeter measuring apparatus used in mills, etc., for whole pieces.

Improved Pocket Microscope For Quality Control Work

Stratex Instrument Co. (formerly Mohave Instrument Co.), Los Angeles, Calif., is now manufacturing an improved ten-power Hasting Triplet pocket microscope for quality control and general plant use for visual inspection of pulps, fibers, paper, threads, dyestuffs, textiles and raw materials. Extreme brilliane of flat, color-free field is the designer's answer to the demand for an inexpensive but readily available inspection device for detection of minute variations, flaws or impurities in raw materials, color, texture and other quality control procedures. For maximum protection against both attrition and chemicals, the three cemented lens elements are mounted in a hard finished aluminum lens cell protected by a stainless steel frame. A heavy duty nichel silver jump ring provides safe attachment to neck cord or watch chain for protection against loss.

New Dyes For Nylon Developed By Althouse

The development of permanent color, direct application dyes for nylon, in light, medium and heavy shades is announced by Althouse Chemical Co., Reading, Pa. In making these dyes available to textile manufacturers and converters, the company provides a new nylon colorfast standard for the industry, which extends even to the cutting-up trade, the cleaner, and the consumer. Known as the Supernylite dyes, these are the first nylon colors which are extremely fast to light and washing. No fading is reported even when the fabric is subjected to as much as 100 or more Fadometer hours, or when washed with soap and soda at 160° F.

The Supernylite dyes come in yellow, orange, scarlet, red, blue, green and brown. Since these dyes have the property of piling on, they can be used for all depths of shade, an unusual feature for nylon dyes. Fabrics may be dyed in a color range from light to dark, depending on the percentage of the dye used, with assurance that light and wash-fastness will be held at all percentage levels. In addition, fabrics hold excellent color under alkali and acid perspiration tests, and under hot pressing.

The dyes can be used on nylon stock, yarn, or pieces. They can also be used to dye wool and nylon union, and, in addition, they dye extremely fast to light and washing unions with the Althouse companion line of Superlitefast direct colors for rayon and cotton. Thus, colorfast unions of nylon, wool, rayon and cotton are now available.

Althouse Chemical Co. has also originated a series of Nydye colors for nylon which are readily soluble and are wash-fast. They are applied to nylon as easily as silk colors to silk, or direct colors to cotton, and do not require any dispersing agents or dyeing assistants. Since the Nydyes have unusual fastness to both washing and fulling, they are superior in this respect to the conventional acetate colors. Nydyes are also suitable for the dyeing of medium and heavy shades, as they pile on and yield a maximum depth with a minimum percentage of dye. Colors include yellow, orange, scarlet, red, violet, three tones of blue (including navy), hunter green, brown and black. These dyes can also be used in conjunction with both direct and acetate colors, as they have no effect on the dyeing properties or on other colors.

In raising the standards for nylon dyes, Althouse Chemical Co. contributes to the industry: (1) extreme light and wash-fastness in all available colors and shades with the Supernylite line; (2) easy application, extreme wash-fastness, normal light-fastness, and a wide range of colors with the Nydye line; and (3) superior wash-fastness in medium and heavy shades with both lines. These features are the result of a continuing program of research, which has been responsible for originating many new color-fast developments, and establishing new light and wash-fast standards for nylon, cotton and rayon direct application dyes.

Gardner Laboratory Develops New Colorimeter For Cotton

Development and manufacture of a new automatic colorimeter for cotton is announced by Henry A. Gardner Laboratory, Inc., 4723 Elm Street, Bethesda 14, Md. This new instrument was developed from performance specifications prepared by Dorothy Nickerson of the Product Marketing Administration of the U. S. Department of Agriculture for an instrument that could be used in the cotton classing room to show automatically, and without manipulation by the operator, the exact color of each sample of cotton brought to it. Richard S. Hunter

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Four fine words which have been woven into a shining banner to describe the success of our nation—the "Better Business" which has made America the greatest nation of people on the face of the earth.

Four fine words . . . to be considered—defined—remembered—lest in their oft-usage, we lose their significance. The Spirit of Progress is the Spirit of American Business . . . founded on free enterprise; nurtured by the independent rights of the individual. Our Nation is a success—it is the essence of Freedom—the hope of the world. We don't want socialism. We don't want communism. We want Americanism.

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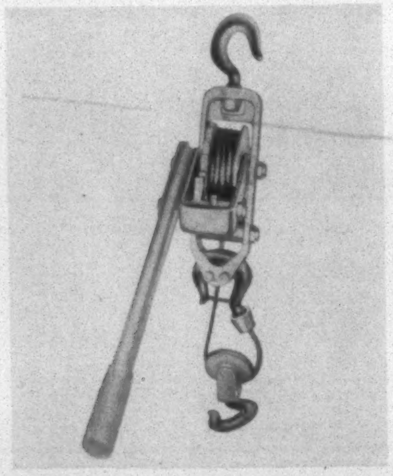
P. O. BOX 164 – GASTONIA, N. C.

and Marshall G. Powell of the Gardner Laboratory applied the successful color-measurement methods of the manual Hunter color and color-difference meter, also produced by Gardner, to the automatic measurement of the color of cotton. For cotton colors, Hunter's co-ordinates "Rd" and "b" provide, with conversion, a picture close to that of measurements in terms of Munsell valve and chroma.

The instrument was designed to show graphically on a two-dimensional scale simultaneous values for reflectance and yellowness. Further, the instrument is self-contained in a movable cabinet about table height, with a minimum of exposed parts. The exposure of samples and reading of results is done in the horizontal plane of the table. Electrical measurements of photocell currents are converted to color as in the color-difference meter, except that Brown ElectroniK amplifiers replace the galvanometer, and reversible motors, responding to the signals from these amplifiers, replace the human operator, both in standardizing the instrument and in turning dials to obtain color settings. While this particular instrument is limited to the range of cotton colors, the principles upon which it is designed are adaptable to other limited ranges of color, in either two or three dimensions.

New Lug-All Winch-Hoist Embodies Many Features

Rapidly gaining favor in the textile industry, according to the manufacturer, is the new Lug-All winch-hoist first introduced six months ago by the producer, Lincoln Precision Machining Co. of North Grafton, Mass. Specific applications in the textile industry listed by the firm are the lifting of warps, general plant maintenance (example: machine repair), electrical wiring, lifting of mill equipment into elevated positions, loading and unloading of trucks, moving material in receiving department, and changing transporter batteries. Among textile concerns using the new Lug-All, according to the manufacturer, are American Bemberg Corp., Elizabethton, Tenn.; Canton (Ga.) Cotton Mill; Celanese Corp. of America, Cumberland, Md.; Cone Mills Corp., Greensboro, N. C.; Crompton & Knowles Loom Works, Worcester, Mass.; Franklin Worsted Co., Philadelphia, Pa.; Kendall Mill, Walpole, Mass.; Rockwell Woolen Co., Leominster, Mass.; Slatersville (R. I.) Finishing Co.; Victor Dye Works, Inc., Philadelphia; Waverly Dyeing & Processing Co., Philadelphia; and Windsor Mfg. Co., Philadelphia.



Five New Dyes Marketed By Du Pont Division

The dyestuffs division of E. I. du Pont de Nemours & Co., Inc., recently has put the following new products on the market:

Celanthrene Fast Pink 3B—A direct dyeing acetate color suitable for the production of a wide range of pastel shades of pink, lilac and lavender as well as for shading. The color has high affinity for both acetate rayon and nylon and has excellent leveling and penetrating characteristics.

Acetamine Fast Yellow 4RL—One of the notable characteristics of this new addition to the range of Du Pont dyes for acetate and nylon is said to be its exceptionally good fastness to light. This color discharges well, is a value shading element for increasing the light fastness in various acetate color combinations, and is recommended for the coloring of drapery fabrics, upholstery materials, furniture coverings, sportswear and dress goods.

Pontamine Diazo Scarlet P Conc.—The brilliant scarlet shades produced by Pontamine Diazo Scarlet P Conc. can be discharged to a good white on both viscose-process rayon and cotton. It possesses general good fastness characteristics and is suitable for dyeing materials used for dress goods, sportswear, play clothing and similar fabrics.

Pontamine Fast Blue BLL—A direct dyeing medium blue especially recommended where an unusual degree of resistance to light is required. It can be applied to all forms of cotton and viscose-process rayon by the usual methods. It is suitable for dyeing upholstery and drapery fabrics and is also of particular interest in the production of taupes and grays for automotive materials.

Anthraquinone Blue 4GL—The addition of Du Pont Anthraquinone Blue 4GL to the range of acid dyes for wool offers the processor a greenish shade of blue that possesses generally good all-round fastness characteristics. It is used for dyeing women's wear materials, blankets, knitting yarns and is also suitable for dyeing nylon.

Riggs & Lombard Announces Stainless Steel Acid Tank

A new SHO stainless steel acid tank for use in cloth carbonizing ranges has been announced by Riggs & Lombard, Inc., manufacturer of textile wet finishing and drying equipment. According to the manufacturer, the new type tanks will afford maximum resistance to acid and a longer life than other types now in use. It is easier to keep clean and has no rubber lining to damage or replace. Constructed entirely of SHO stainless steel, the need for recovering carrier and immersion rolls is eliminated. The carrier sky rolls are located above the tub rim to give a longer soaking time. There are three standard sets of squeeze rolls, rubber-covered for pulling quality, and proper squeeze.

Heavy stainless steel channels reinforce the sturdily built tub on the outside. The new model is normally supplied with air pressure equipment for easy operation and even side-to-side pressure. A compressed air circulating system is at one end to keep the acid in the tub constantly agitated and to insure an even condition throughout the tank. More detailed information on this new stainless steel acid tank may be had by writing directly to Riggs & Lombard, Inc., foot of Suffolk Street, Lowell, Mass.

Sonoco Buys Tube Division Of Champion Container Co.

Sonoco Products Co., Hartsville, S. C., largest manufacturer of textile paper carriers, announces the purchase of the tube division of the Champion Container Co. This plant, located in Philadelphia, manufactures tubes, both parallel and spiral wound.

The plant will continue to operate with the same personnel, and George M. Hynes, former president of the tube division of the Champion company, will continue as general manager. Mr. Hynes has had more than 20 years experience in the tube business. Orders for this plant will be handled through the Mystic, Conn., sales office. The addition of the new plant, which will be known as the Champion Division of Sonoco Products Co., will assure better services to those customers located in the Philadelphia area.

In addition to the Philadelphia plant, Sonoco now operates factories in Hartsville, S. C., Mystic, Conn., Garwood, N. J., Lowell, Mass., Brantford, Ont., and Granby, Que.

Selling House Directory Offered By Publication

A new edition of *Worth Street Selling House Directory* has been published by the *Journal of Commerce*, 63 Park Row, New York 17, N. Y. The popular *Worth Street Selling House Directory* (1950 edition) is an eight-page guide to primary market cloth houses. Company's name, address, telephone number, executive personnel, products, and selling agents information are listed. It sells for 15 cents, and the *Journal of Commerce* will also quote bulk order rates on request.

Tennant Offers Three New Technical Data Sheets

Three new technical data sheets—Ammonia Alum, Potash Alum and Aluminum Sulphate (Iron-Free)—were issued this month by Ca. Tennant, Sons & Co. of New York, and are available, with samples, upon request. The technical data sheets describe a particularly high quality brand of products manufactured in a new plant of Peter Spence & Sons, Ltd., England, now being distributed in this country by Tennant. Spence's alums have been known in the U. S. A. since before the Civil War, when the company established a reputation for high quality and uninterrupted deliveries.

The ammonia and potash alum are presently available in granular form, packed in

100-pound paper-lined burlap bags. They can be supplied in U. S. P. grades, if required. In the near future, the material will be offered in other forms. The Spence-Tennant Aluminum Sulphate is an iron-free grade, creamy white in color. It is sold in 14 per cent, 17 percent and 22 per cent concentrations of Al_2O_3 in lump, granular and powder form. This product also is available as a commercial grade where iron-free quality is not essential.

Device Records, Controls Viscosity Of Liquids

Continuous accurate indicating and recording of the viscosity of hundreds of industrial liquids while under actual processing has been made possible by a new instrument. The new device, known as a VisocMaT, was announced jointly by Brookfield Engineering Laboratories, Inc., and Brown Instruments Division of Minneapolis-Honeywell Regulator Co. The announcement said the instrument is particularly adaptable for use in the textile industry where constant viscosity is important. In addition to indicating and recording viscosity, the viscometer when used with an ElectroniK recorder can be used as an automatic controller with built-in audible or visual alarms.

The ViscoMaT viscometer is said to be capable of indicating and recording viscosity changes as small as one-half of one per cent of scale and can handle viscosity from a minimum of 20 centipoises to a maximum of 100,000 centipoises. The device eliminates sample taking, provides continuous measurement, measures viscosity in strongly agitated solutions and is engineered to meet individual requirements, Brown officials said.

The complete measuring system includes a viscosity measuring head and an ElectroniK recorder, which can be of either the circular or strip chart type. Installation of the system is easily accomplished and consists of: (1) mounting the viscosity measuring head so that the baffle tube will be properly immersed in the fluid whose viscosity is to be measured; (2) installing the recording instrument wherever convenient; and (3) connecting the two by means of a six-wire cable.

The principle of operation is both simple and accurate and is based on utilizing a calibrated spring to measure the torque on a spindle rotating at a constant speed and submerged in the fluid to be measured. In the case of the ViscoMaT, the spindle may be a calibrated cylinder, a disc, a paddle, or a number of cups, depending on the nature of the measured material and the viscosity range involved.

New Vat Thickener Attracts Interest Of Textile Printers

Textile printers are showing considerable interest in a specially developed vat thickener that is producing excellent results on French crepes and Bemberg sheers. Known commercially as Ambertex M, this vat thickener has two features of immediate interest. It penetrates the cloth, insures a complete discharge of the ground color and prints with unmottled, sunbright brilliance. It also has a cohesive action that not only holds the pattern to the exact proportions of the original engraving but also reproduces the pattern with razor-sharp detail, it is claimed.

Field reports say that Ambertex M, by depositing a soft, pliable film on the cloth, eliminates "splitting" on French crepes and Bemberg sheers. This overcomes the well-known tendency of ordinary thickeners to embrittle, crack or rupture these fabrics. Production men find that Ambertex M is less expensive to prepare than conventional cook-up thickeners. With it, vat pastes can be readied in 30 minutes instead of the usual three to four hours. Ambertex M is simply blended with vat chemicals and tap water. Further details can be had from the manufacturer, National Starch Products, Inc., 268 Madison Avenue, New York City 16.

Salisbury Combing Attachment Embodies Many New Features

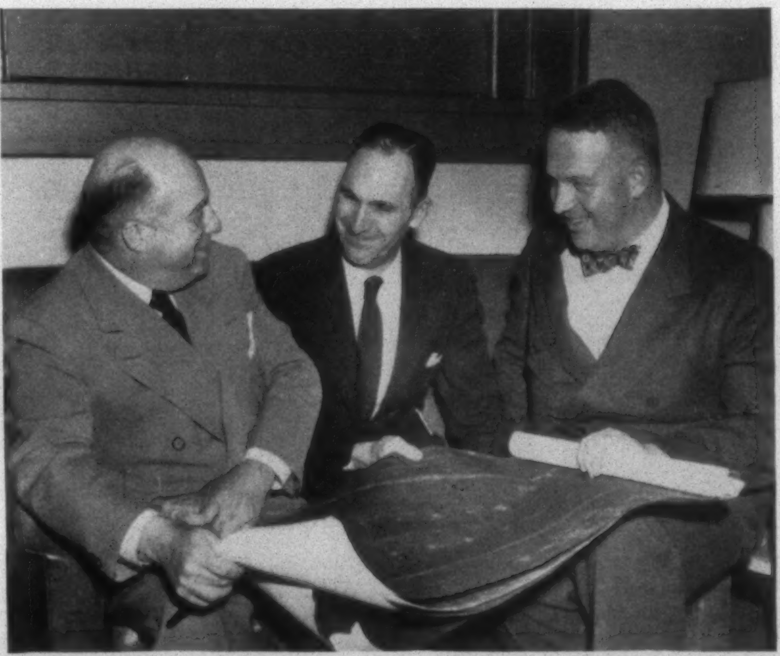
Salisbury (N. C.) Iron Works, Inc., has made available to the industry a parts list folder for its Salisbury combing attachment. According to the firm, this combing attachment has proven successful on the processing of raw fibers of either cotton, rayon, wool, or synthetics. It is a well constructed dependable unit that may be installed on blending and picker feeders similar to models SBF-1 and SBF-2 produced by Salisbury Iron Works. The combing attachment is said to possess many advantages over the old type rotary kick-off roll. When used with weighed blending mixes, this attachment assures a better intermixing of the various fibers and delivers a much higher grade and more thoroughly stretched and blended stock at the doffer end of the machine. The firm points out that in doing away with the old type kick roll, the danger of fire within the machine is lessened as the fibers are no longer able to choke the kick roll thereby creating unwanted friction heat.

Trucks For Textile Industry Described In Excel Folder

A variety of trucks for use in the textile industry are described in an attractive folder available from Excel Textile Supply Co. of Lincolnton, N. C. The folder pictures and gives a brief description of the loose doff box, doff box frames, doff trucks, slatted yarn trucks, metal yarn trucks, slatted conditioning trucks, waste can trucks, platform trucks, metal conditioning trucks, fibre trucks, steel lap trucks, utility fibre trucks, utility metal trucks, comber lap trucks, pin board trucks, bale opening trucks, cone trucks, beam trucks, sliver can, swing bed doff, battery filling and rack trucks.

New Abbott Plant Being Constructed At Greenville

Construction was started early this month at Greenville, S. C., on a new Southern headquarters building for Abbott Machine Works. The one-story, 100 by 90-foot building is expected to be completed within a few months. The modernistic building will have pressed cream brick on the front, with granite and limestone copings. The Abbott firm produces such machine tools as automatic winders and quillers. The Southern headquarters is maintained mainly for sales, service, direction, inspection and experimental work.



DISCUSSING NEW ATKINSON, HASERICK & CO. SERVICE FOR THE SOUTH are, *left to right,* F. E. Bozeman, Jr., who resigned from Dan River Mills, Inc., to become Southern manager for the Boston, Mass., firm; C. W. Gilchrist of Charlotte Chemical Laboratories, chairman of the Charlotte Chamber of Commerce industrial committee; John L. Coon, Jr., president of Atkinson, Haserick. The company has leased 8,000 square feet of floor space at 1639 West Morehead Street, Charlotte, where it will open offices and warehouse next month.

N. C. Textile Foundation Holds Meeting

The North Carolina Textile Foundation, Inc., in annual session at N. C. State College Feb. 25 formulated plans to make the college's school of textiles—already the world's largest institution of its kind—an even greater center of education and research. The organization, which has funds totaling approximately $1,200,000 and which was the first educational foundation of its type organized in the state, also re-elected officers, named 24 directors, and heard addresses by Chancellor J. W. Harrelson of State College and Textile Dean Malcolm E. Campbell.

Around 300 representatives of the textile industry from North Carolina, South Carolina, Virginia, and other states attended the meeting and toured the new $700,000 additions to the School of Textiles Building. The meeting was held in the new modernistic auditorium of the school.

W. J. (Nick) Carter of Greensboro, vice-president of J. P. Stevens & Co., was re-elected president of the foundation. He has served as head of the organization since its establishment in December, 1942. Other officers, all of whom were re-elected, are A. G. Myers of Gastonia, president of Textiles, Inc., vice-president; David Clark of Charlotte, president of Clark Publishing Co., secretary; William H. Ruffin of Durham, president of Erwin Mills, treasurer; and Aaron B. Quinn of Greensboro, assistant secretary-treasurer.

The directors who were unanimously elected are as follows: Charles L. Amos, High Point; Carl J. Beaver, China Grove; C. A. Cannon, Kannapolis; Josiah Carter, Atlanta, Ga.; W. J. Carter, Greensboro; Thurmond Chatham, Elkin; David Clark, Charlotte; John W. Clark, Franklinville; Carl A. Cline, Hickory; Clyde Gordon, Burlington; Herman Cone, Greensboro; J. C. Cowan, Greensboro; S. W. Cramer, Jr., Charlotte; R. S. Dickson, Charlotte; A. M. Dixon, Gastonia; B. B. Gossett, Charlotte; Hugh M. Grey, Concord; P. H. Hanes, Winston-Salem; R. M. Hanes, Winston-Salem; Henry L. Harris, Galax, Va.; R. L. Harris, Roxboro; W. C. Harris, Winder, Ga.; Edwin Spier, New York, N. Y.; Alexander F. Ix, Englewood, N. J.; Joseph P. Kelly, Burlington; K. P. Lewis, Durham; J. Harold Lineberger, Belmont; J. Spencer Love, Greensboro; George L. Lyerly, Hickory; William Nebel, Charlotte; John F. Matheson, Mooresville; Reid A. Maynard, Burlington; J. Ed Millis, High Point; E. A. Morris, Greensboro; A. G. Myers, Gastonia; W. H. Ruffin, Durham; W. P. Saunders, Robbins; A. Alex Shuford, Hickory; K. S. Tanner, Spindale; E. A. Terrell, Charlotte; N. W. Turner, Lynchburg, Va.; John K. Voehringer, Greensboro; G. W. Walker, New York, N. Y.; H. W. Whitcomb, Spray; and C. D. Williamson, Fort Worth, Tex.

Pictured here are the officers of the North Carolina Textile Foundation as they conferred at N. C. State College Feb. 25 following their re-election at the foundation's annual meeting. *Left to right:* A. G. Myers of Gastonia, president of Textiles, Inc., vice-president; William H. Ruffin of Durham, president of Erwin Mills, treasurer; W. J. (Nick) Carter of Greensboro, seated, vice-president of J. P. Stevens & Co., president; Aaron B. Quinn of Greensboro, assistant secretary-treasurer; David Clark of Charlotte, president of the Clark Publishing Co., secretary; and Dean Malcolm E. Campbell of the School of Textiles at State College, host at the meeting.

Reporting on the first half century of service made by the North Carolina State College School of Textiles, Dean Campbell said that the past year has seen the school conduct its biggest building program, as authorized by the 1947 General Assembly, and graduate its largest senior class of 303. With an enlarged plant and with the financial support of the Textile Foundation, the school, Dean Campbell said now faces its brightest period and is in a position to render more educational and research service for the people of the state than ever in its 50-year history.

The school, he said, has educated 1,600 students since it was established in 1900. Principal objective of the school, he explained, is to train young men and women for service in the textile industry. The school, he stated, has seven main curricula relating to specialized textile fields and has a total enrollment of 751 students, 68 per cent of whom are from North Carolina and 32 per cent of whom come from 26 states and 16 foreign countries. Dean Campbell told of the work of the school's placement bureau, and said that the bureau serves both the students seeking employment and industries seeking new personnel.

Dean Campbell introduced the following department heads in the school of textiles: T. R. Hart, director of instruction; E. B. Grover, department of yarn manufacturing; B. L. Whittier, department of fabric development; W. E. Shinn, knitting department; Henry Rutherford, department of textile chemistry and dyeing; Clarence Asbill, department of textile machinery development; John F. Bogdan, research department; and G. H. Dunlap, technical consultant and head of the placement bureau.

He expressed appreciation to the State of North Carolina and the Textile Foundation for their financial support and said that the school stands ready to provide expanded services with the full use of its old and new facilities.

The secretary's and treasurer's reports were made by David Clark of Charlotte, the foundation's secretary. Mr. Clark also made a brief talk in which he praised the work of Mr. Carter in starting the movement which led to the Textile Foundation's organization.

Delegates to the meeting were served a buffet luncheon at the school of textiles by wives of faculty members and members of the staff of the school.

Cotton Research Knowledge To Be Cataloged

The National Cotton Council has started the job of cataloging all cotton research knowledge in line with the recommendation proposed last month at the council's Cotton Research Clinic held in Washington, according to Dr. Leonard Smith, utilization-research director.

"The textile scientists attending the first cotton clinic meeting recognized the need for keeping abreast of all phases of cotton research," Dr. Smith said, "and they urged that the council undertake to compile and publish periodic reports of all cotton textile research activities. The objective would be to make available not only current research efforts but also unpublished and possibly obscure information which might be helpful. Our utilization-research division is now taking steps to implement the clinic's recommendation. We believe the cotton industry will be helped greatly by having a complete and up to the minute reference guide on "who" is doing "what" in cotton research. Moreover, the pooling of research knowledge should serve to accelerate cotton research accomplishment, thereby keeping cotton out in front in textile competition." The council's research director also announced that a detailed report covering the three-day cotton clinic discussions would be issued at an early date.

"The textile industry must continue to march forward in its program of research or become the victim of other industries," Robert C. Jackson, executive vice-president of the American Cotton Manufacturers Institute warned textile scientists attending the research clinic. "Great strides have been made in textile research," Mr. Jackson told the more than 50 research experts meeting at the Statler Hotel, "but at the same time not nearly enough attention has been paid to the threats posed by non-textile competition, by new materials being developed and constantly improved by research which may cut into all textile markets, regardless of what fiber may be used now."

"The consumer can make or break a product, a store or even an industry," Dr. Howard L. Stier, president of the Washington Chapter, American Association, told a session of the clinic. Speaking on the importance of market research, Dr. Stier informed the textile scientists that consumer satisfaction with the product "is becoming more and more recognized as an additional important function which market research should investigate." The research official emphasized the housewife demands value and quality and expects efficiency in the distribution system.

Kappa Sigma Phi, professional textile sorority, installed the Beta Chapter of the North Carolina State College School of Textiles in its national organization at ceremonies Feb. 18. Representatives from the Alpha Chapter at Philadelphia Textile Institute conducted the installation. The N. C. State College chapter has been functioning as a local sorority since March, 1949, when it was inaugurated with six charter members. This sorority, the only national one of its kind, hopes to integrate women in the present textile field, socially as well as professionally, and to promote interest in women in the textile profession.

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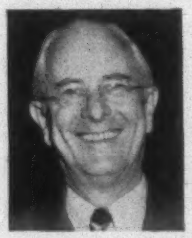
A.C.M.I. Parley To Consider World Trade

The need of preserving this nation's stake in world textile trade is expected to come in for a major share of attention at the annual meeting of the cotton textile manufacturers in Palm Beach, Fla., March 30-April 1. This will be the first annual meeting of the new American Cotton Manufacturers Institute, formed last October after the dissolution of the American Cotton Manufacturers Association and the Cotton Textile Institute. Formation of a single trade body was hailed as an epochal event in the industry.

The new institute, with headquarters at Charlotte, N. C., and representing virtually all the cotton industry, provides the cotton textile mills with a long-sought unified voice in dealing with industry-wide problems which are becoming more and more national and international in their character.



The top-billed speaker at the convention, Secretary of Commerce Charles Sawyer, left, is expected to discuss economic conditions and government policies affecting the immense textile industry which is spread over a wide area but is largely concentrated in the Carolinas, Georgia, Alabama and New England. Secretary Sawyer will speak at the first general session of the convention, Thursday afternoon, March 30, following the annual report of the president, Ellison S. McKissick of Alice Mfg. Co., Easley, S. C. Prior to this, there will be two meetings of the board of directors, one Wednesday evening and the other on Thursday morning.

Developments in the past year and in recent years have tended to focus the attention of the industry on the urgency of preserving America's stake in world textile trade and a portion of Mr. McKissick's annual report is expected to deal with this general situation.

In the last several years exports have become a matter of growing consequence. Industry sources estimate the American shipments of cotton goods abroad are equivalent to employment of some 50,000 operatives, or about ten per cent of the American cotton textile workers. The challenge to American export leadership is posed by the rapidly reviving textile industry of Japan, industry spokesmen say. They generally agree that American mills, no matter how efficient or modern, can't compete price-wise in world markets with low-wage Asiatic countries.

The American industry in recent months has been considering the possibility of joining with the British in sending a fact-finding commission to Japan to study phases of the Japanese industry at first hand. The Supreme Command Allied Powers recently agreed to return the industry to Japanese control.

Only recently Mr. McKissick expressed the view that developments have come about which clearly define the vulnerability of this country's foreign markets. "While the Japanese output of cotton goods may not be large enough to engulf world markets at the present time," he said, "foreign buyers are using Japanese prices to drive down values on textiles from other producing sources. Of even more importance, they constitute a threat to the stability of the American industry's domestic markets."

Mr. McKissick said the world wide revision of currencies that followed devaluation of the pound put foreign producers of textiles in a better competitive position. He added that the cotton textile industry is also vitally concerned with the effects of the recent tariff adjustments and trade treaties as they relate to world extile trade. The failure last year to retain the peril point provisions in the reciprocal trade agreements act, he said, involves a risk "whereby further tariff slashes on cotton goods might prove destructive."

While leaders in the industry are not inclined to minimize the long-range problems confronting the mills in the United States, the American industry has completed an economic cycle since the convention of the old American Cotton Manufacturers Association at Palm Beach last Spring. A year ago the industry was in the very depths of a long and painful post-war recession, but in the last half of 1949 it moved toward recovery and stability. While prices and production dropped to the place where operations in many instances were unprofitable, the industry came through the readjustment period with a new strength and the promise of stability, leaders in the industry believe. They point to the fact that in 1949 the industry, consisting of hundreds of scattered mills, large and small, demonstrated that it could gear its production and merchandising to rapid changes in demand. That the mills are in much stronger technological position than in former years goes without saying. Mr. McKissick pointed out recently that the mills in the five post-war years, 1945 through 1949, programmed more than a billion dollars for modernization and improvements, with a peak of $350 million reached last year.

There will be two speakers at the second general session of the convention on Friday morning, March 31. Flake Shaw, executive vice-president of the North Carolina Farm Bureau Federation, will speak on "Agriculture Looks at Socialism" and William Rhea Blake, executive vice-president of the National Cotton Council, will talk on "Cotton Looks at Socialism." The meeting Saturday, April 1, will be devoted to an analysis of the activities of the new association which was formed only last October. Reports will be submitted by various committee chairmen at this session.

Chairmen of the committees are: traffic, Wyllys H. Taylor, Newnan (Ga.) Cotton Mills; technical service, W. H. Beattie, Woodside Mills, Greenville, S. C.; cotton, A. K. Winget, Efird Mfg. Co., Albemarle, N. C.; legislation, Charles C. Hertwig, Bibb Mfg. Co., Macon, Ga.; public relations, H. K. Hallett, Kendall Mills, Charlotte, N. C.; research, M. Earl Heard, West Point (Ga.) Mfg. Co.; foreign trade, William H. Ruffin, Erwin Cotton Mills Co., Durham, N. C.; resolutions, Joe L. Lanier, West Point (Ga.) Mfg. Co.; and nominations, R. E. Henry, Victor-Monaghan Co., Greenville, S. C.

The election of officers will follow the committee reports. The A.C.M.I. officers, besides Mr. McKissick, are: George P. Swift, Muscogee Mfg. Co., Columbus, Ga., first vice-president William H. Ruffin, Erwin Cotton Mills Co., Durham, N. C., second vice-president; Robert C. Jackson of Charlotte, executive vice-president, and F. S. Love, Charlotte, secretary and treasurer.

Approximately 150 members of the South Carolina Legislature visited in Greenville, S. C., March 22-23 as guests of textile manufacturers of Greenville and Pickens Counties. In addition, about 50 state officials and other guests were feted by the manufacturers. The visitors were honored at a reception and banquet at the Poinsett Hotel the evening of March 22 and the following day toured several textile plants in the area. William H. Beattie, president of Woodside Mills, was in charge of arrangements for the visit and tour.

S.T.A. Units In Spring Meetings

The South Carolina Division of the Southern Textile Association was scheduled to have held its annual Spring meeting March 25 in Spartanburg, S. C. The program was to consist of addresses (with subsequent discussion) by H. L. Werner of Werner Textile Consultants, New York City, on "Materials Handling," and W. S. Whiting, Jr., of Whiting Products Co., Camden, S. C., on "Spooler Conveyors." Principal business slated to be accomplished at the meeting was the election of a new general chairman of the division to succeed Dave H. Roberts, overseer of weaving at Mill No. 2 of Spartan Mills, who has headed the group during the past year. Also to be elected was a new chairman of the group's carding and spinning section.

The Northern North Carolina-Virginia Division of the S.T.A. will hold its Spring meeting April 15 in Hylton Hall, Danville, Va., beginning at 10 a. m. Walter D. Vincent of Dan River Mills, Inc., is chairman of the group. Featured speaker will be the Rev. Kenneth Goodson, pastor of the First Methodist Church of High Point, N. C. Following his address the meeting will be divided into eight discussion groups which will meet separately to deal with operational problems concerning carding, spinning, warp preparation, weaving, standards, technical control, maintenance, and industrial relations. Luncheon will be served by Dan River Mills following the meeting.

Students Plan Textile Open House

Students of the School of Textiles at North Carolina State College will hold a Textile Open House Saturday, April 22. All persons interested in textiles or in the school of textiles are invited to attend the day-long affair. The Textile Open House is a student-sponsored and student operated project. Guided tours showing the processing of cotton, rayon, and wool will be conducted at intervals throughout the day. Special displays will demonstrate unusual aspects of the textile industry. Movies will be shown in the new auditorium and each guest will receive a souvenir. The open house is being held so that those in industry will be able to see the college training that their prospective employees receive, and so that other interested persons will be able to see how their clothing and household textile items are produced.

Rhode Island School of Design, Providence, played host on the evening of March 1 to over 200 key representatives of the textile industry of Rhode Island, Massachusetts and nearby Connecticut at a dinner meeting and inspection of the school's new pilot plant. Addresses were delivered by William D. Fales, chairman of the division of textiles and clothing; Max W. Sullivan, president of Rhode Island School of Design; Michelle Murphy, industrial design consultant of the Brooklyn Museum; Dorothy Liebes, designer and weaver of California and New York; Kenneth B. Cook, vice-president and general manager of Crown Mfg. Co.

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Textile Machinery Exhibition Opens May 8

The newest machines developed for the manufacture and processing of fabrics, many of them never before shown, will be displayed and demonstrated at the American Textile Machinery Exhibition in Atlantic City, N. J., May 8-12. Some of the equipment is so new that the work on pilot models is being rushed in the research laboratories so that these engineering advances can be among the machines displayed and demonstrated at the show.

The 1950 exhibition, the first staged by the National Association of Textile Machinery Manufacturers in a full 11 years, will be held in the Atlantic City Auditorium, a hall so large that football and polo games can be played in it and the statement is still sworn to that even Babe Ruth could not bat a ball its length. Yet the floor space for exhibits is completely sold out and there is a long waiting list of firms hopeful that an extra inch can be found for them.

It literally will be a five million dollar show. The displays of some of the larger firms will cost well over $100,000 each and all of the exhibits will be in operation. Several concerns already have announced that they will show and demonstrate the newest machinery they have in production and that which has been developed but which is not yet in production, as well as pilot models of the latest advances emerging from their research laboratories. An army of more than 3,000 people is needed to stage, conduct and maintain the exhibition and over 200 companies have taken display space.

In the years since the association's last show many new fabrics and fibers including rayon and nylon as well as other new processes have been developed, necessitating the conception and production of new machinery. The newest designs, refinements and accessories in this equipment also will be shown.

The exhibition committee is headed by Erwin N. Darrin, vice-president of Draper Corp., Hopedale, Mass., as chairman. Other members are J. Hugh Bolton, president of Whitin Machine Works, Whitinsville, Mass.; Frederic W. Howe, Jr., vice-president of Crompton & Knowles Loom Works, Worcester, Mass.; Frank Lowell, vice-president of Saco-Lowell Shops, Boston, Mass.; Winthrop S. Warren, sales manager of Universal Winding Co., Providence, R. I.; W. H. Rometsch, Jr., secretary and treasurer of Fletcher Works, Inc., Philadelphia, Pa.; R. G. Ross, sales manager of the textile division of Barber-Colman Co., Rockford, Ill., and Edgar A. Terrell, president of the Terrell Co., Charlotte, N. C.

Making plans for the $5,000,000 1950 American Textile Machinery Exhibition in Atlantic City, May 8 through 12, are the *above* members of the National Association of Textile Machinery Manufacturers which is sponsoring the show in the Atlantic City Auditorium. *Seated* are Robert Leeson, *left*, president of the Universal Winding Co. and retiring president of the association, and J. Hugh Bolton, newly-elected association president and president of Whitin Machine Works. *Standing at left* is Erwin N. Darrin, chairman of the exhibition committee and vice-president of Draper Corp., and *right*, W. Frank Lowell, member of the exhibition committee and vice-president of Saco-Lowell Shops.

Mr. Bolton, president of Whitin Machine Works, has been elected president of the National Association of Textile Machinery Manufacturers. Other officers elected at the same time include: vice-president, Mr. Howe, vice-president and general sales manager of Crompton & Knowles Loom Works; treasurer, Samuel F. Rockwell, president and treasurer of Davis & Furber Machine Co., North Andover, Mass.; secretary, Max F. Thompson of the Whitin Machine Works.

"From all indications the attendance by company executives, mill officials, sales managers and key men in all branches and departments of the textile trade will be very heavy," said Mr. Darrin. "Many of the large textile mills throughout the country are planning to send groups of their superintendents, overseers and foremen to the exhibition.

"In fact the exhibition committee urges all mills and firms in associated fields to send not only the top management to the exhibition but also to make a point of having key operating men see the machines, watch them in operation and compare them in their efficiency to the equipment presently in their own mills," continued Mr. Darrin. "These men are a very important part of each firm's team and their opinions are most valuable to the management. Because of their positions in the mills they know the limitations of the present equipment. They can see at a glance the benefits to be derived from the new machines exhibited and can appraise, from the technical standpoint, the improvements made in older models.

"Persons intending to visit the exhibition are urged to communicate promptly with the Housing Secretary, 16 Central Pier, Atlantic City, N. J., for room reservations," he concluded. "While Atlantic City is one of the largest seaside resorts in the world and possesses many fine hotels, facilities are frequently exhausted when exhibitions of the size and scope of the American Textile Machinery Exhibition are held. It is important that those planning to visit the exhibition write to the Housing Bureau promptly indicating the number of rooms desired. Applications for rooms will be assigned immediately and acknowledged. Room rates range upwards from $2 a day per person."

Admission to the exhibition is free to everyone in the textile industry. Tickets may be obtained in any quantity desired by communicating with Albert C. Rau, manager, Campbell-Fairbanks Expositions, 332 Park Square Building, Boston, Mass., from any of the exhibitors or upon registration at the exhibition in Atlantic City.

Dunean Wins Textile Basketball Tourney

Dunean Mills of Greenville, S. C., defeated Peerless Woolen Mills of Rossville, Ga., to capture top honors in the annual Southern Textile Basketball Tournament held Feb. 28-March 4 at Textile Hall in Greenville. Teams representing textile plants from many Southern states participated. A total of 116 games were reeled off during the five-day tourney. Other tourney champions were Springs Cotton Mills in the "B" Boys division, North Georgia Processing Co. in the "B" Girls class and Pelzer Mills, "C" Boys. Honored by being named to the all-star "A" Boys team were Earl Wooten of Pelzer, Ward Williams and Horace Turner of Dunean, and Brownell Bryant and Bill Miller of Peerless.

Bill Sandel, athletic-recreation director of Victor-Monaghan Co., Greenville, was elected 1951 president of the Southern Textile Athletic Association, sponsors of the tourney. Mr. Sandel succeeds Horace C. Whitmire of Brandon Corp., who in turn was named 1951 treasurer. Harry Clark of Judson Mills was re-elected association secretary and Hugh Anderson of Victor-Monaghan was re-elected vice-president.

A.C.M.I. Research Group Holds Session

A called meeting of the recently-organized research committee of the American Cotton Manufacturers Institute was held last month in Greenville, S. C., "to discuss research as it affects members of the A.C.M.I. and to develop the functions of the research committee." Attending the session were Chairman M. Earl Heard, West Point Mfg. Co., Shawmut, Ala.; Norman Armitage, Deering Milliken Research Trust, Greenwich, Conn.; James M. Bennett, Riegel Textile Corp., Ware Shoals, S. C.; V. B. Holland, Cannon Mills Co., Kannapolis, N. C.; W. A. Turner, Avondale Mills, Sylacauga, Ala.; R. H. Tuttle, Fieldcrest Mills, Spray, N. C., all committee members; and W. H. Beattie, Woodside Mills, Greenville, chairman of the A.C.M.I. technical service, and John T. Wigington, director of the A.C.M.I.'s division of technical service.

Rayon Fabric Standards Up For Acceptance

Minimum quality standards for rayon fabrics for 50 different end uses in wearing apparel for men and women and for home furnishings came a step closer to acceptance as American standards last month. Meeting at the American Standards Association headquarters, the Rayon Fabrics Committee, sponsored by the National Retail Dry Goods Association, approved work completed by its subcommittees on these three classes of fabrics and on test methods. The standards will cover both piece goods and fabrics in finished textile articles. They now go to the national organizations that are members of the committee for study and vote on acceptance.

In general, proposed standards provide means of determining the performance of fabrics containing more than 50 per cent rayon in terms of reproducible tests. The tests have been selected and developed from existing methods of such agencies as the American Society for Testing Materials, National Bureau of Standards, American Viscose Corp., the Federal Specifications Board, and the American Association of Textile Chemists and Colorists. Measurable qualities include water absorbency; water repellency; breaking or bursting strength; color fastness, when subjected to laundering, sunlight, perspiration, dry cleaning and pressing; shrinkage in laundering; crease resistance; permanence of finish. The committee approved plans to develop tests for wear resistance.

Since the technical work is now completed, a subcommittee is starting work to develop a nation-wide program to

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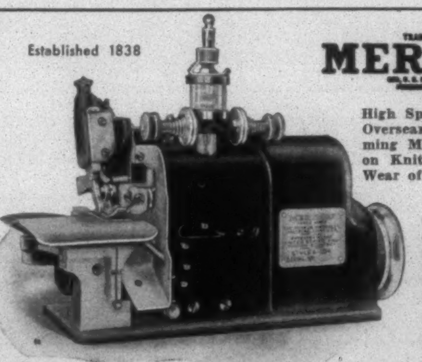

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put the standards into use. Harold Merahn, sales promotion manager and vice-president of Gertz Department Store, Jamaica, L. I., N. Y., is chairman. Mr. Merahn discussed the organization of his subcommittee and mentioned tentative plans to develop a promotional, advertising, educational, and certification program. The committee's proposals will be submitted to the Rayon Fabrics Sectional Committee for approval.

No Carded Yarn Curtailment Seen

Spinners of carded cotton yarn report low inventories and a healthy backlog of orders, the Textile Information Service reported recently. The combination knocks on the head any talk of immediate curtailment by carded yarn spinners. Stocks in the hands of members of the Carded Yarn Association were reported to total only 72.2 per cent of one week's production while unfilled orders equal eight weeks' output, the information service said.

The survey included about 86 per cent of the Carded Yarn Association membership. It was based on reports covering about 1,400,000 operating spindles. The information service said figures were based on operations for the week ending Feb. 18 and commented that they offered a sharp contrast between the actual technical position of the spinners and unconfirmed reports of recent weeks.

The Textile Information Service said although sales were somewhat under the January average in the week surveyed, this was offset to a great extent by the fact that shipments were in good balance with production. The output, the service added, included yarn being made for future delivery against unfilled orders. Indicated shipments for the week were 95.1 per cent of output. Unfilled orders on the books, aggregating all types, were more than 11 times the actual stocks of yarn in inventories, the service said.

Spinners were reported concerned over the marked hesitance of buyers to contract for normal forward requirements, but their chief concern comes from "a sense of responsibility as primary suppliers," the service said. In spite of rubber and tire interests entering the sales yarn field, the Textile Information Service said, there has been a mortality of some 300,000 spindles in the last four years. A sudden move by buyers to obtain needed supplies such as occurred in September and October last year, the information service added, could quite conceivably have an unstabilizing effect.

Spinning And Consumption Figures Given

The Bureau of the Census reports that the cotton spinning industry operated during February at 133.4 per cent of capacity on a two-shift, 80-hour-week basis. This compared with 133 per cent in January this year, and 112.3 per cent in February last year. Spinning spindles in place Feb. 25 totaled 23,264,000, of which 20,417,000 were active in con-

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suming cotton on the last working day of the month, compared with 23,286,000 and 20,217,000 for Jan. 28 this year and 23,741,000 and 20,758,000 a year ago. Active spindle hours for spindles consuming cotton for February totaled 9,181,000,000 compared with 9,091,000,000 for January this year and 7,966,000,00 last year.

The Census Bureau reports that cotton consumption during February averaged 37,592 bales daily, compared with 37,651 in January and 32,546 in February last year. The daily average consumption of cotton during the seven-month period ended Feb. 25 was 34,571 bales, compared with 32,392 during the corresponding period a year ago.

Total consumption of cotton during the seven-month period was 5,079,163 bales and of linters 942,574 bales, compared with 4,324,709 and 801,184 in the corresponding period a year ago. Cotton on hand Feb. 25 included: in consuming establishments 1,825,791 bales compared with 1,616,394 a year ago; in public storage and compresses 9,228,737 bales compared with 7,563,540 a year ago.

1949 Fourth Quarter Yardage Reported

Fourth quarter production of cotton broad woven goods during 1949 was up two per cent in comparison with the fourth quarter of 1948 and 19 per cent over that of the third quarter of 1949 the Bureau of the Census has made known.

A slight increase in the production of tire cord and fabric also was reported for the fourth quarter. Production in the fourth quarter totaled 2,315,000,000 linear yards, Census said, in comparison with 2,265,000,000 yards in the corresponding quarter of 1948 and 1,943,000,000 in the third quarter of 1949. Active looms on Dec. 31 totaled 357,000.

Figures show that 1949 production of cotton broad woven goods amounted to 8,513,000,000 yards, compared with 9,641,000,000 linear yards in 1948. These figures include estimates for companies not reporting quarterly. A special annual survey of these companies will make possible a revision of the annual figures later in the year.

Yarn consumed during the fourth quarter in the production of cotton broad woven goods and cotton, rayon and nylon tire cord and fabric amounted to 833 million pounds, of which 746 million pounds were cotton, 79 million rayon and eight million pounds other fibers.

There were 381,000 looms in place Dec. 31, 1949, assigned to the production of cotton broad woven goods and cotton, rayon and nylon tire fabrics. A total of 359,000 looms was reported active on the first shift, 348,000 on the second shift and 234,000 on the third shift. Hours of loom operations totaled 424 million in the fourth quarter.

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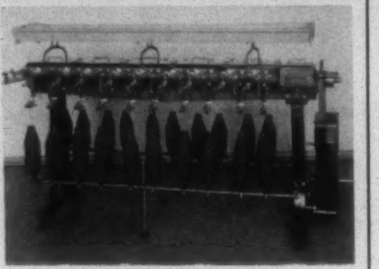

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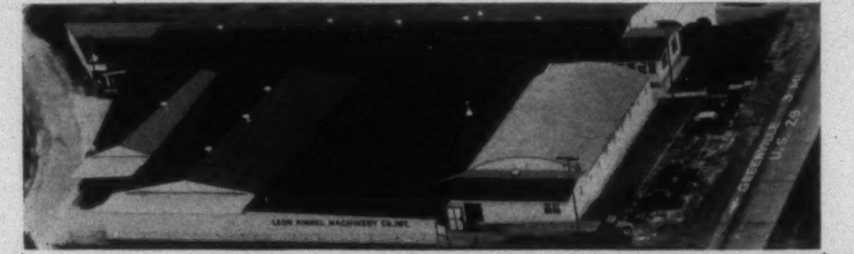

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JARRETT CO., CECIL H., Newton, N. C.

JENKINS METAL SHOPS, INC., Gastonia, N. C.

KEEVER STARCH CO., Columbus, O. Sou. Office, 1200 Woodside Bldg., Greenville, S. C. Sou. Warehouses: Greenville, S. C., Charlotte, N. C. Sou. Reprs.: C. C. Switzer, Greenville, S. C.; E. Hays Reynolds, Greenville, S. C.; Luke J. Castile, 3015 Forest Park Dr., Charlotte 3, N. C.; F. M. Wallace, Homewood, Birmingham, Ala.; James C. Jacobs, 406 Howard-Aden Apts., Cleveland St., Spartanburg, S. C.

KIMMEL MACHINERY CO., LEON, P. O. Box 1316, New Spartanburg Highway, Greenville, S. C.

KLUTTZ MACHINE & FOUNDRY CO., Gastonia, N. C.

LAMBETH ROPE CORP., New Bedford, Mass. Frank Burke, Phone 3-4287, Charlotte, N. C.; J. P. O'Leary, Phone 4082-M, Greenville, S. C.; Stuart E. Campbell, Phone 2753, Griffin, Ga.

LANDIS, INC., OLIVER D., 718 Queens Rd., Charlotte 7, N. C. Charles R. Ibach, Charlotte, N. C.

LAUREL SOAP MFG. CO., INC., 2607 E. Tioga St., Philadelphia, Pa. Sou. Repr.: A. Henry Gaede, P. O. Box 1083, Charlotte, N. C.

LEWIS MACHINERY CO., W. D., P. O. Box 826, Gastonia, N. C.

LOPER CO., RALPH E., 500 Woodside Bldg., Greenville, S. C. New England Office, Buffington Bldg., Fall River, Mass.

LUTTRELL & CO., C. E., Greenville, S. C.

MANHATTAN RUBBER MFG. DIVISION OF RAYBESTOS-MANHATTAN, INC., THE, Passiac, N. J. Factory: North Charleston, S. C. Sou. Distributors: Alabama—Teague Hdw. Co., Montgomery; Anniston Hdw. Co., Anniston; Long-Lewis Hdw. Co., Birmingham; Gadsden Hdw. Co., Gadsden. Georgia—American Mchy. Supply Co., Atlanta; Bibb Supply Co., Macon. Kentucky—Graft-Pelle Co., Louisville. North Carolina—Charlotte Supply Co., Charlotte; Dillon Supply Co., Raleigh, Durham and Rocky Mount; Kester Mchy. Co., Winston-Salem, High Point and Burlington. South Carolina—The Cameron & Barkley Co., Charleston; Carolina Supply Co., Greenville; Columbia Supply Co., Columbia; Montgomery & Crawford, Inc., Spartanburg; Sumter Mchy. Co., Sumter; Tennessee—Chattanooga Belt & Sup. Co., Chattanooga; Summers Hdw. & Sup. Co., Johnson City; Power Equipment Co., Knoxville; Buford Bros., Inc., Nashville; Lewis Supply Co., Memphis. Virginia—Industrial Supply Corp., Richmond.

MARTHA MILLS DIVISION, Silvertown, Ga. Sou. Sales Agents: Walter T. Forbes Co., Chattanooga, Tenn.

MARQUETTE METAL PRODUCTS CO., THE, 1145 Galewood Drive, Cleveland 10, O. Sou. Reprs.: C. H. White, 1229 Pamilco Drive, Greensboro, N. C.; W. P. Russell, Box 778, Atlanta, Ga.; Byrd Miller, 908 Woodside Bldg., Greenville, S. C.

MEADOWS MFG. CO., P. O. Box 4354, Atlanta, Ga. N. C. Repr.: Walter S. Coleman, P. O. Box 722, Salisbury, N. C.; S. C. Repr.: James P. Coleman, P. O. Box 1351, Greenville, S. C.; Ga., Ala. and Tenn. Repr.: R. L. Holloway, P. O. Box 4334, Atlanta, Ga.

MEINHARD, GREEFF, & CO., 51 Madison Ave., New York, N. Y. Sou. Repr.: E. F. Skinner, Johnston Bldg., Charlotte 2, N. C.

MERROW MACHINE CO., THE, 8 Laurel St., Hartford, Conn. Hollister-Moreland Co., P. O. Box 721, Spartanburg, S. C.

METAL FINISHING CORP., 1733 Statesville Ave., Charlotte, N. C.

MILL DEVICES CO., Gastonia, N. C. R. D. Hughes Sales Co., 1812 Main St., Dallas, Tex., Texas and Arkansas; Eastern Repr.: (including Canada) C. E. Herrick, 44 Franklin St., Providence, R. I.; European Repr.: Mellor, Bromley & Co., Ltd., Liecester, England.

MILLER, BYRD, Manufacturers' Agent, Woodside Bldg., Greenville, S. C.

MITCHAM & CO., N. Marietta St., P. O. Box 271, Gastonia, N. C.

MOORESVILLE IRON WORKS, P. O. Box 246, Mooresville, N. C.

NATIONAL ANILINE DIVISION, Allied Chemical & Dye Corp., Gen. Office, 40 Rector St., New York 6, N. Y. Julian T. Chase, Res. Mgr. Kenneth Mackenzie, Asst. to Res. Mgr., 201 W. First St., Charlotte, N. C. Salesmen: Wyss L. Barker, Harry L. Shinn, Geo. A. Artope and J. Reese Daniel, 201 W. First St., Charlotte, N. C.; C. J. Dulin and R. F. Morris, Jr., Jefferson Standard Bldg., Greensboro, N. C.; H. A. Rodgers and Chas. A. Spratt, 1202 James Bldg., Chattanooga 2, Tenn.; J. K. Boykin, American Savings Bank Bldg., Atlanta Ga.; W. H. Jackson, 213 Columbus Interstate Bldg., Columbus, Ga.; A. Jones, Jr., 408 Cotton Exchange Bldg., New Orleans, La.; Henry A. Cathey, 403 E. Franklin St., Room 210, Richmond, Va.

NATIONAL RING TRAVELER CO., 354 Pine St., Pawtucket, R. I. Sou. Office and Warehouse, 131 W. First St., Charlotte, N. C. Gen. Mgr., L. E. Taylor, Pawtucket, R. I. Sou. Mgr., H. B. Askew, Charlotte, N. C. Sou. Reprs.: J. K. Sumner, P. O. Box 1607, Charlotte, N. C.; Donald C. Creech, P. O. Box 1723, High Point, N. C.; Frank S. Beacham, P. O. Box 281, Honea Path, S. C.; W. Harry King, P. O Box 272, Atlanta, Ga.

NEISLER MILLS CO., INC., 40 Worth St., New York, N. Y.

NEW ENGLAND BOBBIN & SHUTTLE CO., Nashua, N. H. Sou. Reprs.: Charlotte Supply Co., Charlotte, N. C.; Mrs. W. G. Hamner, Box 26, Gastonia, N. C.; Arthur W. Harris, 443 Stonewall St., S.W., Atlanta, Ga.; Henry H. Hersey, Norwood Place, Greenville, S. C.

N. Y. & N. J. LUBRICANT CO., 292 Madison Ave., New York 17, N. Y. Sou. Office and Warehouse: 634 S. Cedar St., Charlotte, N. C., Phone 3-7191. Falls L. Thomason, Sou. Mgr., 634 S. Cedar St., Charlotte, N. C.; Carroll A. Campbell, Mgr. Loom Lubrication Div., P. O. Box 782, Greenville, S. C. Sales and Service Engineers: Fred W. Phillips, P. O. Box 782, Greenville, S. C.; Jas. A. Sorrells, Jr., P. O. Box 576, Charlotte 1, N. C.; W. C. Taylor, P. O. Box 1161, Greensboro, N. C.; Julian T. Pool, P. O. Box 316, LaGrange, Ga. Warehouses: Charlotte, N. C., Greensboro, N. C., Greenville, S. C., Atlanta, Ga., Columbus, Ga., Birmingham, Ala.

NORCROSS CORP., 247 Newtonville Ave., Newton, Mass. Sou. Office: 123 N. Poplar St., Charlotte, N. C. Ralph Howell, Sou. Mgr.

NORLANDER-YOUNG MACHINE CO., New Bedford, Mass. Sou. Plant, York Road, Gastonia, N. C.

NORTH, INC., FRANK G., 1378 Murphy Ave., S.W., P. O. Box 123, Station "A." Phone Raymond 2196-2136, Atlanta, Ga.; Marietta, Ga., P. O. Box 92, Phone 250, Frank G. North, Pres. and Treas.; Mark W. Mayes, V.-Pres. Reprs.: Emile LeClair, Atlanta, Ga.; J. Cantey Alexander, Atlanta, Ga.; Raymond J. Payne, Carolinas, P. O. Box 6000, Charlotte 7, N. C., Phone 4-7331.

PABST SALES CO., 221 N. LaSalle St., Chicago 1, Ill. Sou. Repr.: C. H. Patrick, P. O. Box 300, Salisbury, N. C., Phone 1066. Sou. Warehouse, Textile Warehouse Co., Greenville, S. C.

PARKS-CRAMER CO., Plants at Fitchburg, Mass., and Charlotte, N. C. Atlanta Office, Bona Allen Bldg.

PEASE & CO., J. N., 119½ E. Fifth St., Charlotte, N. C.

PENICK & FORD, LTD., INC., 420 Lexington Ave., New York City; Cedar Rapids, Iowa. P. G. Wear, Sou. Sales Mgr., 806 Bona Allen Bldg., Atlanta 3, Ga.; J. H. Almand, Glenn M. Anderson, W. J. Kirby, Atlanta Office: C. T. Lassiter, Greensboro, N. C.; Guy L. Morrison, L. C. Harmon, Jr., 902 Montgomery Bldg., Spartanburg, S. C.; T. H. Nelson, Charlotte, N. C.; W. R. Brown, 1214 Liberty National Bank Bldg., Dallas, Tex. Stocks carried at convenient points.

PHILADELPHIA QUARTZ CO., Public Ledger Bldg., Philadelphia 6, Pa. Sou. Reprs.: F. Homer Bell, 2624 Forest Way, N.E., Atlanta 5, Ga.; Kenneth B. King, 1601 Seventh St., Charlotte, N. C.; Richard D. Greenway, 1356 Harding Place, Charlotte 3, N. C. Textile Distributors: Southern States Chemical Co., Atlanta, Ga.: Arnold Hoffman & Co., Inc., F. H. Ross & Co., Inc., Southern States Chemical Co., Charlotte, N. C.; Southern States Chemical Co., Greenville, S. C.; Southern Textile & Chemical Products Co., High Point, N. C.; Marlow-Van Loan Corp., High Point, N. C.; Taylor Salt & Chemical Co., Norfolk, Va.

PIEDMONT PROCESSING CO., Belmont, N. C.

PILOT LIFE INSURANCE CO. Jos. F. Freeman, Vice-President in Charge of Group Department, Greensboro, N. C.

PIONEER HEDDLE & REED CO., INC., 1374 Murphy Ave., S.W., P. O. Box 116, Station A, Telephone Raymond 2136, Atlanta, Ga. Frank G. North, Chairman of the Board; Mark W. Mayes, Pres. and Treas.; E. LeClair, Sales Mgr.; Glee B. Thompson, J. Cantey Alexander, Atlanta, Ga.; Raymond J. Payne, Carolina Repr., P. O. Box 6000, Charlotte 7, N. C., Tel. 4-7331.

PITTSBURGH PLATE GLASS CO., Columbia Chemical Div., Grant Bldg., Pittsburgh, Pa. Dist. Sales Office, 615 Johnston Bldg., Charlotte, N. C., James R. Simpson, Dist. Sales Mgr.

PNEUMAFIL CORP., 2516 Wilkinson Blvd., Charlotte, N. C.

PRICE SPINDLE & FLYER CO., Camp Wadsworth, Spartanburg, S. C.

PROCTOR & SCHWARTZ, INC., 7th Ave. and Tabor Rd., Philadelphia 20, Pa. Sou. Office: Wilder Bldg., Charlotte, N. C.

RAGAN RING CO., Atlanta, Ga. N. C. Repr.: John H. Foard, Box 574, Newton, N. C.

RAY CHEMICAL CO., Charlotte, N. C.

REINER, INC., ROBERT, 550-64 Gregory Ave., Weehawken, N. J. Sou. Repr.: John Klinck, 304 W. Forest Ave., North Augusta, S. C.

RHOADS & SONS, J. E., 35 N. Sixth St., Philadelphia 6, Pa. Sou. Office: J. E. Rhoads & Sons, 88 Forsyth St., S.W., Atlanta, Ga., P. O. Box 4305, C. R. Mitchell, Mgr. Sou. Reprs.: J. Warren Mitchell, P. O. Box 1589, Greenville, S. C.; A. S. Jay, P. O. Box 687, Sylacauga, Ala.; J. T. Hoffman, P. O. Box 4305, Atlanta, Ga.; L. H. Schwoebel, 615 Roslyn Rd., Winston-Salem, N. C.; Textile Supply Co., 301 N. Market St., Dallas, Tex.; Stuart T. Storey, 1224 Fullilove Drive, Bossier City, La.

RICE DOBBY CHAIN CO., Millbury, Mass. Sou. Reprs.: R. E. L. Holt, Jr., Associates, P. O. Box 1474, Jefferson Bldg., Greensboro, N. C. (Ready to serve you.)

ROBERT & CO. ASSOCIATES, Atlanta, Ga.

ROY & SON CO., B. S., Worcester, Mass. Sou. Office and Supply Depot: 1623 N. Tryon St., Charlotte, N. C. Sou. Distributors: Odell Mill Supply Co., Greensboro, N. C.; Textile Mill Supply Co., Charlotte, N. C.; Textile Supply Co., Dallas, Tex.

ROYCE CHEMICAL CO., Carlton Hill, N. J. Sou. Repr.: Irving J. Royce, 2008 Belvedere Ave., Charlotte, N. C.

SACO-LOWELL SHOPS, 60 Batterymarch St., Boston, Mass. Sou. Office and Supply Depot, Charlotte, N. C., F. Robbins Lowe, Sou. Agt.; H. M. Walsh, J. W. Hubbard, Fletcher S. Culpepper, Selling Agts.: Atlanta, Ga.; 101 Marietta St.: Miles A. Comer, Herman J. Jones, Selling Agts.; Greenville, S. C., Woodside Bldg.: Chas. S. Smart, Jr., Perry Clanton, Selling Agts.

SANDOZ CHEMICAL WORKS, INC., 61 Van Dam St., New York 13, N. Y. Sou. Office: 1510-12 Camden Rd., Charlotte, N. C., A. T. Hanes, Jr., Mgr.

SARGENT'S SONS CORP., C. G., Graniteville, Mass. Sou. Reprs.: W. S. Anderson, Carolina Specialty Co., Charlotte 7, N. C.; Philadelphia Repr.: F. E. Wasson, 519 Murdoch Rd., Philadelphia 19, Pa.

SEYDEL-WOOLLEY & CO., 748 Rice St., N.W., Atlanta, Ga., Vasser Woolley, Pres. Reprs.: John R. Seydel, E. A. Scott, A. Pate, Atlanta, Ga.; W. L. Whisnant, Concord, N. C. Northern and Export Repr.: Standard Mill Supply Co., 1064-1090 Main St., Pawtucket, R. I. (conditioning machinery and penetrants only). Southwestern Reprs.: O. T. Daniel, Textile Supply Co., 301 N. Market St., Dallas, Tex.; Welling LaGrone, 13 W. Fairview Ave., Greenville, S. C.

SILVER KING FIBRE CORP., Westport, Mass., Hugh Neville, Jr., Pres. Va. and N. C. Repr.: Oliver D. Landis, Inc., 718 Queens Rd., Charlotte 7, N. C.; Ga., Ala. and Tenn. Repr.: J. W. Davis, 122 Dillingham St., Columbus, Ga.; S. C. Repr.: Ralph Gossett, 15 Augusta St., Greenville, S. C.

SINCLAIR REFINING CO., Dist. Office, 573 W. Peachtree St., Atlanta, Ga., F. W. Schwettmann, Mgr., Lubricating Sales; G. R. Dyer, National Accounts Repr.; Area Offices: Atlanta, Ga., Birmingham, Ala., Jacksonville, Fla., Miami, Fla., Tampa, Fla., Columbia, S. C., Charlotte, N. C., Nashville, Tenn., Jackson, Miss., Montgomery, Ala., Raleigh, N. C., and Macon, Ga. Industrial Lubricating Engineers: R. O. Miller, 15 Miller Ave., Concord, N. C.; J. O. Holt, 1220 Dixie Trail, Raleigh, N. C.; W. H. Lipscomb, 414 McIver St., Greenville, S. C.; R. A. Smith, 121 Island Home Blvd., Knoxville, Tenn.; C. C. Nix, 1926 Sixteenth Ave., So., Birmingham, Ala.; L. M. Kay, 332 Eighth St., N.E., Atlanta, Ga., and H. H. Terrell, P. O. Box 131, Lakeland, Fla.

SIRRINE CO., J. E., Greenville, S. C.

SMITH & SON, E. E., Gastonia, N. C.

SOLVAY SALES DIVISION, ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York, N. Y. Sou. Branch: 212 S. Tryon St., Charlotte, N. C.; Woodward Allen, Branch Mgr. H. W. Causey, Asst. Branch Mgr. Sou. Reprs.: Earl H. Walker, High Point, N. C.; Richard Hoyt, 1216 Edgewood Ave., Jacksonville, Fla.

SONOCO PRODUCTS CO., Hartsville, S. C.

SOUTHERN ELECTRIC SERVICE CO., Charlotte, Greensboro, N. C.; Greenville, Spartanburg, S. C.

SOUTHERN EQUIPMENT SALES CO. (N. C. Equipment Co.), Charlotte, N. C.

SOUTHERN SPINDLE & FLYER CO., Charlotte, N. C.

SOUTHERN SHUTTLES DIVISION, Steel Heddle Mfg. Co., Main Office and Plant, 2100 W. Allegheny Ave., Philadelphia, Pa. Greensboro Office, Guilford Bank Bldg., Box 1917, Greensboro, N. C., C. W. Cain, Mgr.; Henry P. Goodwin, Sales and Service. Greenville Office and Plant, 621 E. McBee Ave., Box 1899, Greenville, S. C., J. J. Kaufmann, Jr., V.-Pres. and Mgr. of Southern Divisions; Davis L. Batson and Sam Zimmerman, Jr., Sales and Service. Atlanta Office and Plant, 268 McDonough Blvd., Box 1496, Atlanta, Ga.; Southern Shuttles, a division of Steel Heddle Mfg. Co., 621 E. McBee Ave., Greenville, S. C., J. J. Kaufmann, Jr., Mgr.

STALEY MFG. CO., A. E., Decatur, Ill. Sou. Offices, 2000 Rhodes-Haverty Bldg., Atlanta, Ga. Wm. H. Randolph, Jr., Southeastern Mgr.; Sou. Reprs.: W. N. Dulaney, 2000 Rhodes-Haverty Bldg., Atlanta, Ga.; L. A. Dillon, 815 Third St., Durham, N. C.; Geo. A. Dean, H. A. Mitchell, Montgomery Bldg., Spartanburg, S. C.; W. T. O'Steen, 435 N. Main St., Greenville, S. C.; Walter P. Hope, Country Club Apts. 16-C, Columbus, Ga.

STANDARD MILL SUPPLY, INC., 513 S. Tryon St., Charlotte, N. C. A. Benson Davis, V.-Pres.; Jack Davis, Salesman.

STANLEY WORKS, THE, New Britain, Conn. Sales Reprs.: G. H. Little, Harrison Bldg., Room 414, 4 S. 15th St., Philadelphia, Pa., Tel. Rittenhouse 9977; G. R. Douglas, 707 Columbian Mutual Towers, Memphis 3, Tenn., Tel. 8-7117; M. A. Hawkins, 3813 General Taylor St., New Orleans 15, La., Tel. Magnolia 5353; H. C. Jones, care The Stanley Sales Co., 410 Candler Bldg., Atlanta, Ga., Tel. Lamar 4651; G. J. McLernon, 209 Hubbard St., San Antonio 2, Tex., Tel. Travis 3653; Charles J. Turpie, Jr., 1412 Scott Ave., Charlotte, N. C., Tel. 3-7015; J. A. Dickson, P. O. Box 390, 122 Bales Ave., Phone 9-2812, Chattanooga, Tenn.; T. P. West, Jr., 7 Mallard St., Greenville, S. C., Tel. 3515-M.

STEEL HEDDLE MFG. CO., Main Office and Plant, 2100 W. Allegheny Ave., Philadelphia, Pa. Greensboro Office, Guilford Bank Bldg., Box 1917, Greensboro, N. C., C. W. Cain, Mgr.; Henry P. Goodwin, Sales and Service, Greenville Office and Plant, 621 E. McBee Ave., Box 1899, Greenville, S. C., J. J. Kaufmann, Jr., V.-Pres. and Mgr. of Southern Divisions; Davis L. Batson and Sam Zimmerman, Jr., Sales and Service. Atlanta Office and Plant, 268 McDonough Blvd., Box 1496, Atlanta, Ga.; Southern Shuttles, a division of Steel Heddle Mfg. Co., 621 E. McBee Ave., Greenville, S. C., J. J. Kaufmann, Jr., Mgr.

STEIN, HALL & CO., INC., 285 Madison Ave., New York City. Charlotte Office: 224 W. Second St., Charlotte, N. C., F. W. Perry, P. O. Box 809, Mgr.; N. C. and Tenn. Repr : W. S. Gilbert, Charlotte; S. C. Repr.: S. S. Hockridge, Charlotte. Atlanta Office: 364 Nelson St., S.W., Atlanta, Ga., E. D. Estes, 1257 Durand Dr., N.W., Mgr.; Ala. Repr.: J. E. Hensley, 3011 Avenue V, Birmingham, Ala.

STERLING RING TRAVELER CO., 101 Lindsay St., Fall River, Mass. Sou. Reprs.: H. B Cabaniss, P. O. Box 188, Monroe, N. C.; M. H. Cranford, 135 Walnut St., Chester, S. C.; D. R. Ivester, Clarkesville, Ga.

STODGHILL & CO., Atlanta, Ga.

SUNRAY CO., Camp Croft Rd., Spartanburg, S. C. E. J. Eaddy, Pres.; H. O. Coddington, Gen. Mgr. Distributors: Wrenn Bros., Charlotte, N. C.; Wilkin & Matthews, Charlotte, N. C.; Coleman Co., Inc., Greenville, S. C.

TERRELL CO., INC., THE, Charlotte, N. C. E. A. Terrell, Pres., W. S. Terrell, Sales Mgr.

TEXAS CO., THE, New York, N. Y. Dist. Offices, Box 901, Norfolk, Va., and Box 1722, Atlanta, Ga, Bulk Plants and Warehouses in all principle cities. Lubrication Engineers: P. C. Bogart, Norfolk, Va.; W. H. Goebel, Roanoke, Va.; F. M. Edwards, Goldsboro, N. C.; W. P. Warner and C. W. Meadors, Charlotte, N. C.; J. S Leonard, Greenville, S. C.; F. G. Mitchell, Charleston, S. C.; L. C. Mitchum, Atlanta, Ga.; A. C. Keiser, Jr., Atlanta, Ga.; J. G. Myers, Birmingham, Ala.; J. W. Buchanan, Munsey Bldg., Baltimore, Md.; G. W. Wood, Charlotte, N. C.; J. H. Murfee, Greensboro, N. C.; G. B. Maupin, Greensboro, N. C.; W. T. Allen, Greensboro, N. C.; C. T. Hardy, Durham, N. C.

TEXIZE CHEMICALS, INC., P. O. Box 305, Greenville, S. C. Pres., W. Jack Greer, 25 W. Prentiss, Greenville, S. C. Reprs.: Greenville, S. C., John B. Garrett, 26 Melville Ave., Phone 3-7205; Carl M. Chalmers, 14-C Lewis Village, Phone 3-4905; Bill Kline, 18-D Lewis Village, Phone 2-4147. Atlanta, Ga., Walter M. Greer, 2330 Chattahoochee Ave., N. W., Phone Belmont 3749.

TEXTILE APRON CO., East Point, Ga.

TEXTILE SHOPS, THE, Spartanburg, S. C. E. J. Eaddy.

TIDE WATER ASSOCIATED OIL CO., 17 Battery Place, New York, N. Y. S. E. District Office: 3119 S. Blvd., Charlotte 3, N. C., K. M. Slocum, Dist. Mgr., Tel. Charlotte 2-3063. Sales Reprs.: R. C. Cook, 1317 Orchard Rd., Richmond 21, Va., Tel. Richmond 84-0804; E. O. Eagle, 620 Joyner St., Greensboro, N. C., Tel. Greensboro 6291; John S. Barnett, Jr., 2 Rodney Ave., Greenville, S. C., Tel. Greenville 3-7128.

U. S. RING TRAVELER CO., 159 Aborn St., Providence, R. I. Sou. Office and Sales Room: 1503 Augusta Rd., Greenville, S. C. Sou. Reprs.: William P. Vaughan and Wm. H. Rose, P. O. Box 1048, Greenville, S. C.; Oliver B. Land, P. O. Box 1187, Athens, Ga.; Harold R. Fisher, P. O. Box 83, Concord, N. C.

UNIVERSAL WINDING CO., P. O. Box 1605, Providence, R. I. Sou. Offices, 819 Johnston Bldg., Charlotte, N. C.; Agts.: R. M. Mauldin and D. M. Dunlap; 903 Whitehead Bldg., Atlanta, Ga., Agt. J. W. Stribling.

VALENTINE CO., J. W., 612 S. Main St., Winston-Salem, N. C.; Box 278 Salem Station, Winston-Salem, N. C. T. Holt Haywood, Wachovia Bank & Trust Co. Bldg., Winston-Salem, N. C.

VEEDER-ROOT, INC., Hartford, Conn. Sou. Office, Room 231 W. Washington St., Greenville, S. C., H. V. Barker, Sou. Dist. Mgr.

VICTOR RING TRAVELER CO., Providence, R. I., with Sou. Office and Sales Room at 358-364 W. Main Ave., P. O. Box 842, Gastonia, N. C. Phone 247. Also W. L. Hudson, Box 1313, Columbus, Ga.

WAK INDUSTRIES, 1314 S. Tryon St., Charlotte, N. C.

WATSON & HART, 1001 E. Bessemer Ave., Greensboro, N. C.

WATSON-WILLIAMS MFG. CO., Millbury, Mass. Sou. Reprs.: W. F. Daboll, 703 Jefferson Bldg., Greensboro, N. C.; Arthur J. Bahan, 810 Woodside Bldg., Greenville, S. C.

WEST POINT FOUNDRY & MACHINE CO., West Point, Ga.

WHEELER REFLECTOR CO., INC., 275 Congress St., Boston 10, Mass. Sou. Reprs.: Ernest Hall, 901-A Sul Ross St., Houston, Tex.; Marshall Whitman, Bona Allen Bldg., Atlanta, Ga.

WHITIN MACHINE WORKS, Whitinsville, Mass. Sou. Office, Whitin Bldg., Charlotte, N. C., R. I. Dalton, Mgr.; 1317 Healey Bldg., Atlanta, Ga. Sou Reprs.: M. J. Bentley and B. B. Peacock.

WHITINSVILLE SPINNING RING CO., Whitinsville, Mass. Sou. Repr.: William K. Shirley, Box 84, Ware Shoals, S. C.

WILKIN & MATTHEWS, 831 N. Tryon St., Charlotte 3, N. C. Hugh Wilkin and John Matthews.

WILSON CO., EMIL V., Greenville, S. C.

WOLF, JACQUES & CO., Passaic, N. J. Sou. Reprs.: C. R. Bruning, 302 N. Ridgeway Dr., Greensboro, N. C.; G. W. Searell, R. No. 15, Knoxville, Tenn.

Before Closing Down

—TEXTILE INDUSTRY HAPPENINGS AS THE MONTH ENDED—

PERSONAL NEWS

William Netherland Dulaney has been appointed assistant Southern manager for the industrial division of A. E. Staley Mfg. Co., with headquarters at 2000 Rhodes-Haverty Building, Atlanta, Ga. William H. Randolph, Jr., is Southern manager for the firm.

Neal A. Mitchell, secretary and a director of Howard Bros. Mfg. Co., Worcester, Mass., since 1936, has been made general manager of the firm. Mr. Mitchell has been associated with Howard Bros. since 1915, when he began work there as office boy, and has served the firm for 35 years except for duty with the Merchant Marine during World War I.

Harold R. Turner, general manager of Duncan Mills, Greenville, S. C., and Watts Mill, Laurens, S. C., will be campaign chairman of the American Cancer Society's 1950 seal sale opening in Greenville County April 1.

J. W. McKain, superintendent of the Victor plant of Victor-Monaghan Co. at Greer, S. C., has been elected president of the Greenville Textile Baseball League for the 1950 season.

Dr. Herschel H. Cudd, former director of the Lantuck division of West Point Mfg. Co., has been appointed head of the chemical sciences division of the Georgia Tech Engineering Experiment Station.

Dr. W. George Parks, professor of chemistry at Rhode Island State College, has been appointed chairman of the national technical program committee of the American Association of Textile Chemists and Colorists.

Paul K. McKenney, Jr., vice-president of Swift Mfg. Co., Columbus, Ga., has been named to the board of directors of the National Association of Manufacturers.

J. A. Chapman, Jr., superintendent of Riverdale Mills, Enoree, S. C., and D. E. Sherrill, superintendent of the Woodruff, S. C., plant of Mills Mill, have been elected directors of the Woodruff Rotary Club. C. P. Dill, superintendent of the Woodruff plant of Brandon Corp., continues as a director of the group.

Kenneth Fraser, comptroller of J. P. Stevens & Co., has been elected a director of the firm.

R. L. Harris, president of Roxboro (N. C.) Cotton Mills, was honored recently by being named for the second straight year as the "Person County Citizen of the Year," by a poll taken by the Roxboro Exchange Club.

Thomas M. Denning on March 12 observed his 50th anniversary as superintendent of Wiscasset Mills Co. at Albemarle, N. C. When Mr. Denning became superintendent of the plant on March 12, 1900, the company operated one unit of 14,000 spindles and 34 cards; it now operates four complete units totaling 93,000 spindles and 571 cards.

John A. Spooner, formerly with Textron, Inc., and Burlington Mills Corp. of New York, is organizing a new textile selling concern in New York to be known as Spooner-Pulte Textile Co., Inc. Associated with Mr. Spooner will be F. Edward Pulte, formerly with Carl Byoir & Co. and Sanders Textile Industries of Mississippi, and Courtland Palmer, former president of Douglas and Du-Court Mills.

John H. Todd, Washington attorney, has been made legislative counsel to the National Cotton Council. He will serve as special assistant to William Rhea Blake, council executive vice-president, in the handling of council legislative affairs in the nation's capital.

William M. Keller has been appointed manager of the Huntingdon, Pa., plant of Owens-Corning Fiberglas Corp. to succeed Edward F. Burow, who has been transferred to the company's general products division as production manager at the Newark, O., plant. Mr. Keller joined Owens-Corning Fiberglas Corp. in 1942 at the Newark, O., plant where he has been engaged in industrial engineering, production planning and production management. He served as plant industrial engineer and plant production planning manager during the period when Fiberglas textile production was centered in Newark.

W. M. Kline, Jr., who joined Texize Chemicals, Inc., Greenville, S. C., March 15, 1949, as sales manager of the industrial division, has been elected to the vice-presidency of the corporation. W. J. Greer was re-elected president and treasurer and James L. Love, Greenville attorney, was re-elected secretary.

William D. Appel of the textile division of the National Bureau of Standards has been elected chairman of Committee D-13 of the American Society for Testing Materials, succeeding Prof. Herbert J. Ball of Lowell (Mass.) Textile Institute. Other officers of the group are Dr. Frederic Bonnet of American Viscose Corp., who has been elevated from second vice-chairman to first vice-chairman; Stewart J. Hayes of Ludlow (Mass.) Mfg. Co., second vice-chairman; and W. H. Whitcomb, re-elected secretary.

J. B. Parker has been promoted to general foreman of the central maintenance shops at Celanese Corp. of America's Rome, Ga., plant, succeeding L. A. Culver, who has retired after 20 years of service.

Dr. James T. Eaton has been named director of research of E. F. Houghton & Co., Philadelphia. Dr. Eaton, who was formerly titled manager of research, is in full charge of the company's research and control department. He was recently elected a member of the company's board of directors.

Newton G. Hardie, former general manager of the Laurens, S. C., division of Deering, Milliken & Co., Inc., has been named plant manager of the Chicopee Mfg. Co. unit at Walhalla, S. C. Mr. Hardie succeeds Troy H. Carter, who has become superintendent of the Easley, S. C., plant of Woodside Cotton Mills.

C. C. Clinkscales, personnel director of Muscogee Mfg. Co., Columbus, Ga., has been elected chairman of the Personnel Managers Division of the Cotton Manufacturers Association of Georgia. Mr. Clinkscales succeeds J. Vernon Wallace of Bibb Mfg. Co., Macon, Ga. Frank B. Etheridge of Crompton-Highland Mills, Griffin, Ga., was elected first vice-president of the group and Sam Black of Martha Mills, Thomaston, Ga., was named second vice-president.

OBITUARIES

Bradley C. Algeo, 79, first assistant director of the Philadelphia Textile Institute and founder of the P.T.I. Alumni Association, died March 12 at a hospital in Oreland, Pa. Mr. Algeo retired in 1940 after 45 years as assistant director of the school and 38 years as president of the alumni association. His knowledges of weave structure of all types of fabrics as well as the ability to analyze and appraise them won him industry-wide recognition. He is survived by a son.

Fred Cockrell, president of the Atlanta (Ga.) Cotton Exchange, head of the cotton brokerage firm of Cockrell & Co., and formerly Southeastern area manager for Anderson, Clayton Co., died March 15 at Houston, Tex. Surviving are his widow and three brothers.

MILL NEWS

ROCK HILL, S. C.—Celanese Corp. of America, through the manager of its Celriver plant here, Harmon Howorth, March 13 presented the chairman of the board of trustees of York County Hospital with a check for $100,000. The hospital is planning a 37-bed addition. The Celanese donation amounts to half the local funds needed to match a federal grant of $200,000.

BUENA VISTA, VA.—Work was started this month on an addition to Bernson Silk Mills. The addition, to contain about 20,000 square feet of floor space, is expected to be completed in three or four months.

EUFAULA, ALA.—Mill No. 3 of Cowikee Mills, Inc., which has been operated as a cotton mill for over 50 years, has been converted into a rayon plant.

to match a Federal grant of $200,000.
consented to give to the church a title to the buildings and property of Arcadia First Baptist Church for as long as it is utilized for church purposes.

NEWBERRY, S. C.—The Oakland plant of the Kendall Co. will be doubled in size with the construction of a four-story addition containing approximately 125,000 square feet of floor space. Construction of the addition is scheduled to start April 15 and officials hope to have machinery installed and in operation early in 1951. This will mark the second step in a program of modernization at the plant. The first part of the program was completed recently when the present building was modernized and the carding and spinning machinery replaced at a cost in excess of $1,500,000.

GREENSBORO, N. C. — Burlington Mills Corp. March 15 announced a refinancing of its funded debt with the Prudential Insurance Co. Three existing individual notes payable to the insurance company, bearing different interest rates with varying average life, in the amounts of $15,000,000, $10,000,000 and $10,000,000 have now been prepaid and replaced by one note to the company in the principal amount of $35,000,000. The new note provides for an interest rate of 2¾ per cent, and the average life is 17½ years with sinking fund payments to start in 1960, it was stated by the company.

PROVIDENCE, R. I.—Royal Little, president of Textron Incorporated, March 14 released preliminary figures for 1949. On sales of $67,900,000 there was a net loss of slightly over $1,600,000 after tax carryback of approximately $1,050,000. In 1948 a profit of $6,937,000 was shown on sales of $98,850,000. In the fourth quarter of 1949 net sales were $20,250,000 with profits before taxes of approximately $2,700,000. Mr. Little announced that long term credits had been arranged in connection with the company's $10,000,000 plant modernization and expansion program.

AUSPICES OF
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EXHIBITION
ATLANTIC CITY
MAY 8-12, 1950
NATIONAL ASSOCIATION TEXTILE MACHINERY MANUFACTURERS

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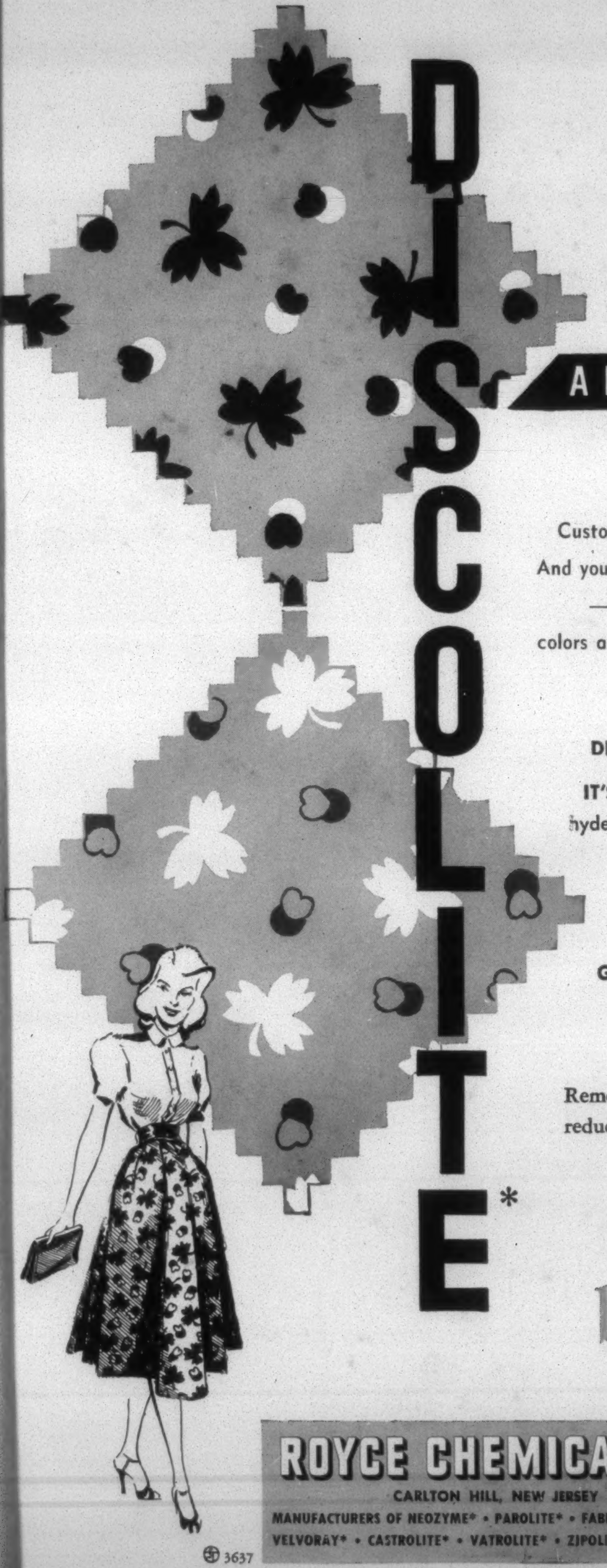

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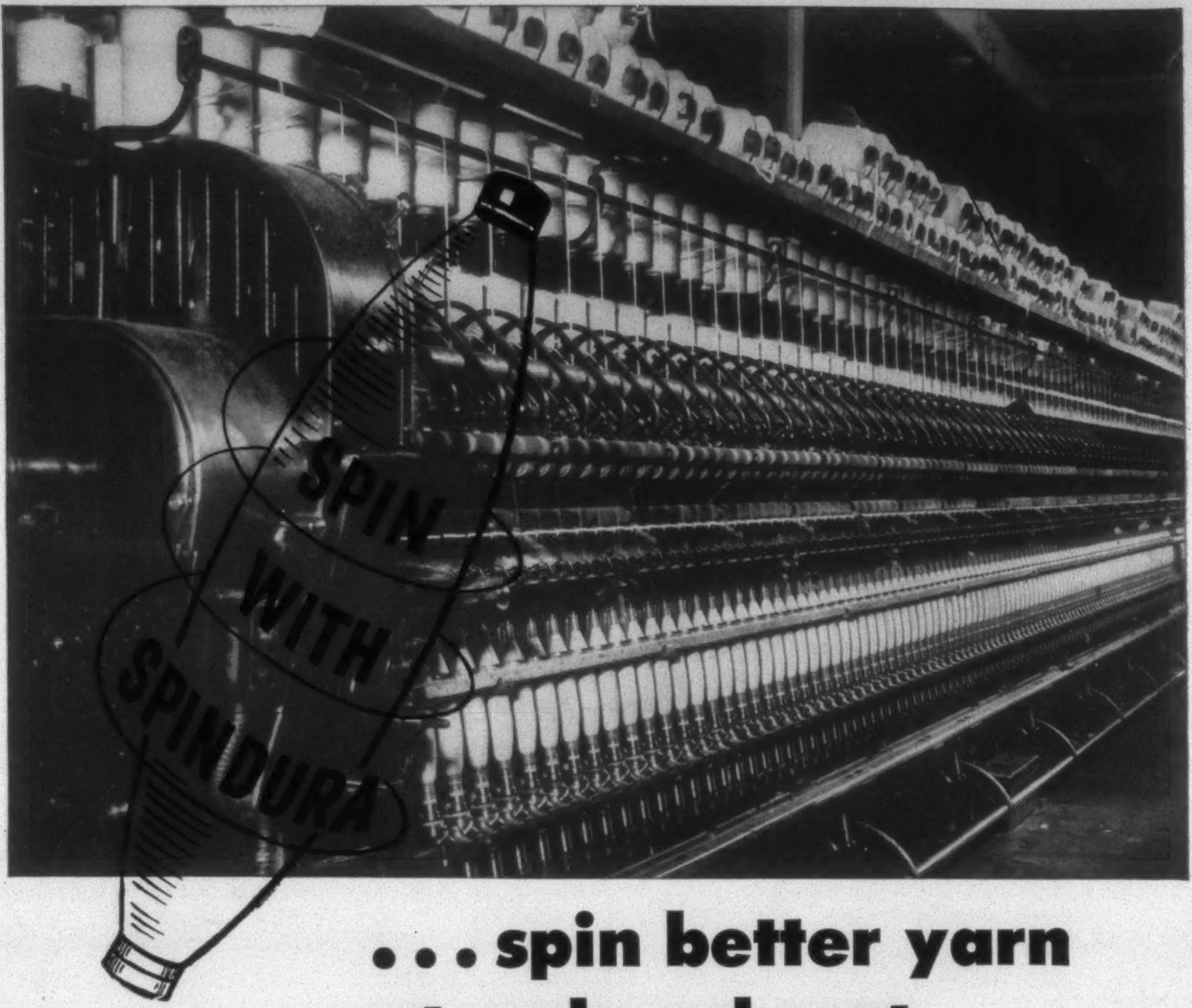

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